YACHTING

Volume LV APRIL + 1934 Number IV

Four Thousand Miles Through the West Indies

By

MARGARET NAPIER ROEBLING

"After bucking the Gulf Stream for ten hours we passed Morro Castle and entered Havana Harbor"

THE idea was born in Nassau in the spring of 1932. At that time my husband and three friends chartered a power boat for a fishing trip of several days and, convinced that no life could compare with that on a boat, they decided to build one which would meet the requirements of a longer cruise in open waters better than did the hired Nassau cruiser. No time was lost. Negotiations were started with a New York architect for the boat and work was begun immediately upon receipt of the plans — right in our own backyard in Clearwater, Florida.

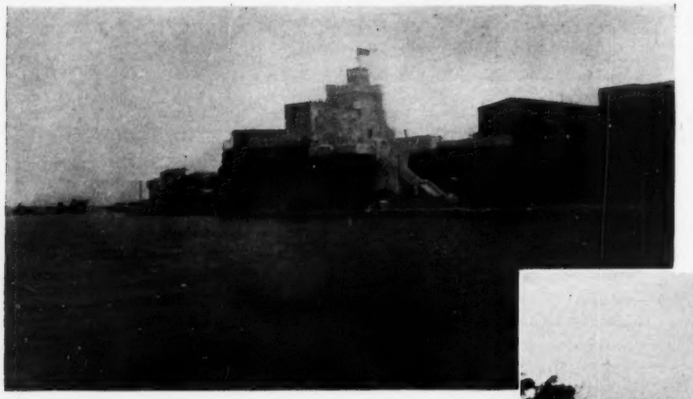
There is a certain fascination and satisfaction in building something yourself, particularly something that you have never attempted before. The skepticism of our friends, who all joined in a firm conviction that our craft would never float, added, perhaps, to the fascination of the venture. Work was started in June of the year mentioned and the boat was launched a few days before Christmas, when she was christened the *Iorano*.

But for a few exceptions, which produced some rather unusual features, the plans were followed quite closely by the local boat builders. Have you ever heard of a pressed wood deck? Well, *Iorano* had one. The idea is really an excellent one because the finely imprinted surface is not in the least slippery, even when wet, and allows one to get around without worrying about an insecure foothold. There was also the matter of a Monel metal streamline rudder, which offers the least possible resistance. As to dimensions, *Iorano* is 46 feet over all, 13 feet beam, and draws only 3 feet, a good feature for the shallow waters along the west coast of Florida.

A brief description of the interior of the boat would read something like the following. There is a forward cabin consisting of crew's quarters, lavatory, a double stateroom, and (our pride and joy) a cedar clothes locker. The deckhouse is equipped with a long and short wave radio receiving set, a gun cabinet containing a good variety of firearms, a chart table, and the steering wheel and controls. The after cabin contains one of the most compact little galleys I have ever seen. It is so small that two of us had quite a bit of difficulty fitting ourselves into it, but we finally learned to manage quite nicely. A three-burner alcohol stove for the cooking proved most satisfactory. Opposite the galley is another lavatory, and abaft this is a cabin for my husband and myself, which also served as the dining room when we did not eat on the after deck.

Under the deckhouse is the engine room, which is still quite foreign to me, but contains a 150 h.p. Kermath motor which gave a sustained cruising speed of about ten knots.

The *Iorano* was built for the express purpose of making a long West Indies cruise. This was something unusual for a boat of this type. After preparing for this venture for months, we finally pulled out of the boathouse on the morning of April first, amid a great flare of fireworks and the farewell boom of an old cannon placed



The entrance to the Ozama River, Santo Domingo

"Iorano" lying at anchor in the peaceful harbor of St. Thomas

on the knoll near the boathouse. We were headed west and ran straight out until we were a couple of miles offshore. Then we put her on a course of south for Key West. The Port Harrison Hotel, Clearwater's one skyscraper, faded into a faint blur against the sky and disappeared. It was our last glimpse of home for many weeks. There were six of us aboard, all amateurs. All that day and night we ran along the west coast of Florida, and the next morning at sunrise arrived in Key West. After steering a compass course all night we felt justly proud to discover at daybreak how accurate we had been. Our navigator, Al Williams, seemed satisfied. This was really our first tryout and provided a good check on both our master compass which was mounted on top of the deckhouse and on our steering compass by the wheel.

Key West is so isolated and distinctive in character that it is difficult to think of it as part of the States. We were forced to wait in Key West several days for some belated papers, and while we were there the *Antonia*, one of the schooners in the 1932 St. Petersburg-Havana Race, which had also started on April first, came into the harbor under power with her sails still set but blown to ribbons and whipping cruelly in the wind. There had been quite a severe storm the night before which had played havoc with the racers, forcing some to give up and return. The *Antonia*, however, went on to Havana under power. We both left before daybreak the same morning and ran abeam for a long distance, but the *Antonia* kept pulling further and further off on our port side until we finally lost sight of her completely.

After running ninety miles, bucking the Gulf Stream and slamming into a strong wind on our port bow for about ten hours, we passed Morro Castle and entered Havana Harbor. Here we found quite a bit of activity as Havana was entertaining the American racers. Havana is too much of a tourist city to appeal to our adventurous souls, and after three days of sightseeing we were on our way again. As we swung eastward in the blue waters of the Gulf Stream, Morro Castle grew dim and finally faded out of sight, far behind in our wake.

We cruised along the north coast of Cuba as far as Cardenas, where we were forced to run in for gasoline, but as soon as possible we were under way again. After running that night and all the next day, most of the time out of sight of land to avoid outlying reefs, it was with a joyous sensation that, just before sunrise, we sighted a lighthouse on a small island, Lobas Cay, one of the Bahama group. It was a beautiful white sand island with nothing on it but the light and the keeper's house. Despite the fact that the British flag was flying ashore, and we had no legal right to land, the authorities were most cordial and allowed us to come ashore for a swim and a greatly needed bath.

Soon after dinner, we were under way again, and early next morning we entered the long and narrow channel leading into the harbor of Puerto Padre, where we again had to stop for fuel. Here we had to wait for a couple of days for the gasoline boat to arrive from Havana. The first evening we all ventured ashore to the one hotel, a poor sort of hostelry, for dinner. With our Spanish limited to "Gracias, Señor," and the waiters unable to speak any English, the menu did us practically no good — but we all knew what we wanted, and that was a nice, juicy steak. But our problem was how to make the waiter understand. Alex, who was able to do almost anything, settled this by taking a paper and pencil and drawing an elaborate picture of a cow. With this pictorial presentation, aided by many gesticulations, he was quite sure that we would get our steaks. Imagine his surprise when we were served chicken livers!

From Puerto Padre we started off on our last lap along the north coast of Cuba, which, with the exception of a few bright moments, had proved quite barren and uninteresting. When we rounded the eastern tip of the island and ran into the United States Naval Base in Guantanamo Bay, we were all in better spirits. We had a feeling that we had no right to anchor here, so we pulled up alongside the new 10,000-ton cruiser *Indianapolis*, which made us look quite insignificant, to make inquiry. We were given to understand that it would be all right for us to anchor, so we moved over to the wharf and tied up. We were not there long, however, before we discovered that we were in the wrong place, but as it was getting dark and we did need gasoline, they

allowed us to stay under the pretense that we were in distress. To be able to speak English and be understood was quite a relief.

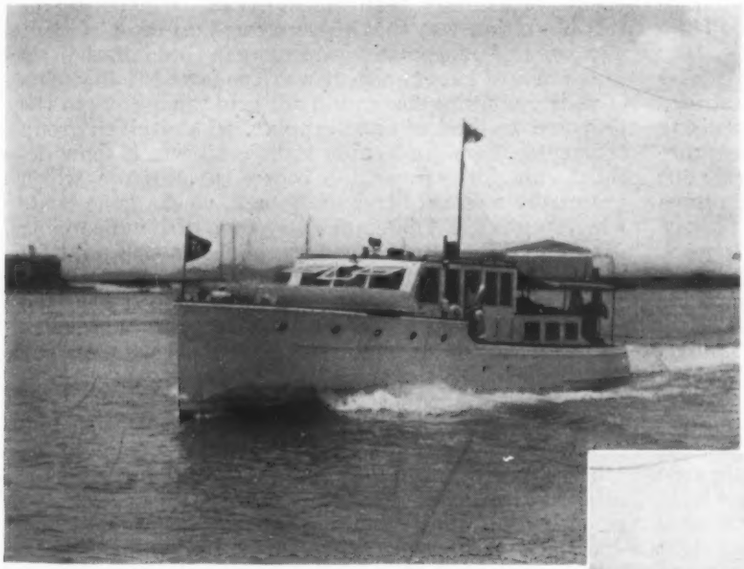
About dusk the next evening we headed out for Port Antonio, Jamaica, and at sunrise next morning, Easter Sunday, we were not far off the coast of Jamaica. During the night we had worked slightly off our compass course and had a poor landfall in consequence, so it was after ten o'clock before we dropped anchor in the beautiful harbor of Port Antonio. Fortunately, the customs officer and doctor were very prompt and we were able to get ashore in time for the Easter morning service. We were amazed to discover that there was only one other white person in the congregation, for this little town possesses only a handful of white inhabitants. We spent two weeks in Jamaica, during one of which we toured the island by car, driving to Kingston, Christiana and Montego Bay. Although the island is beautiful, covered with verdant tropical foliage, we were glad to get back to the *Iorano* at Port Antonio, which we decided was by far the nicest of the towns. Jamaica was very refreshing after Cuba and as we waved goodby to the friends we had made there, we all sincerely hoped that some day we might return to this delightful island.

Iorano was now bound for Haiti, which meant crossing the Windward Passage. Even though it was almost dark, there was still a stiff northeast wind blowing. We did most of our running at night because the trade winds usually died down with the sun and the sea was considerably smoother at that time. We all took our tricks at the wheel and on watch — two hours on and four off, a schedule which was always followed exactly during all night runs. The Windward Passage was uneventful, though we did sight a few ships, all of them quite a distance off. By late afternoon the next day we dropped anchor in Aquin Bay, east of Vache Island, on the south coast of Haiti, where we spent the night. The next day was beautifully calm, so we idled along, fishing, until we ran into a huge school of porpoise. We tried shooting and harpooning them for more than an hour, but they were too clever for us. About noon we anchored in the bay of Jacmel.

Our electric refrigerator had been giving us some trouble since leaving Jamaica, so that we had been drinking lukewarm water for several days, and one of our generators also needed repair. My husband and I decided to drive to Port-au-Prince to have this work done, and, consequently, we did not see a great deal of Jacmel, which the others reported quite uninteresting. The repairs in Port-au-Prince required so much time that we decided to meet the *Iorano* in San Pedro de Macoris, flying there via Pan American Airways. We owe this company unending thanks for the many favors and courtesies they showed us throughout our whole cruise. We expected the *Iorano* to be in Macoris before us, but she was not there, and for two days we worried and waited before receiving any word of her. Then, finally, one of the Pan American pilots sighted her heading east, coming out of Barahona. Needless to say, we were greatly relieved — and the following morning we drove over and joined the others aboard the *Iorano* in Santo Domingo.

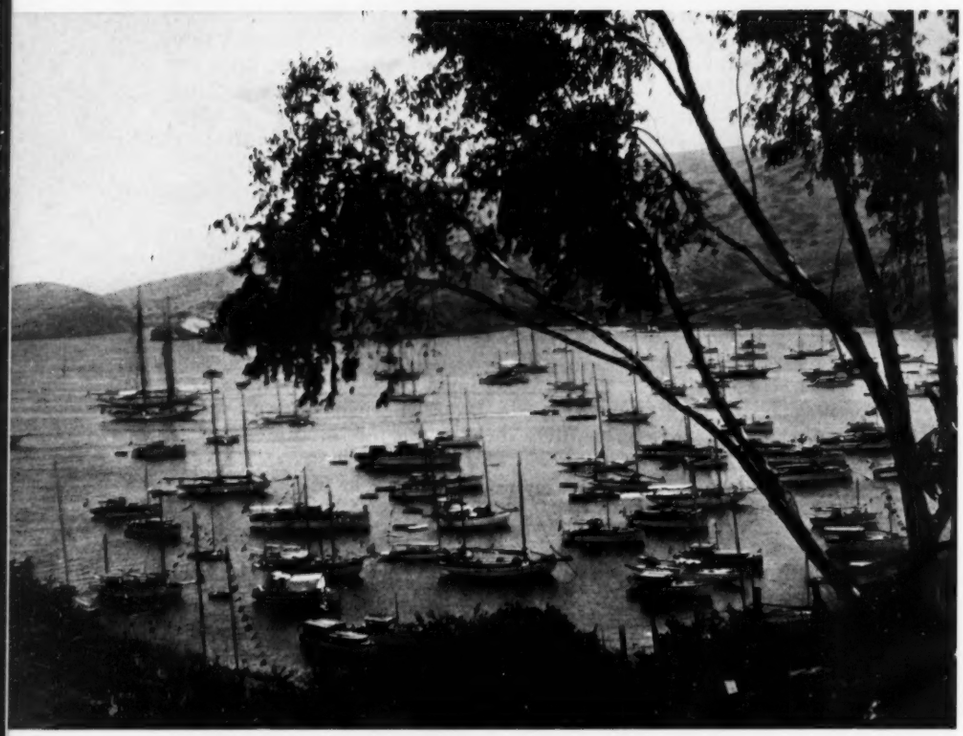
They had quite a tale to relate about their trip from Jacmel. It seems that the prevailing southeast wind had blown hard and steadily; in fact, after leaving Jacmel it kept picking up as the day wore on. It was necessary to keep one man at the wheel and another at the throttle constantly to cut the motor down before she topped each wave so as to keep her from pounding too hard. Finally, one large sea washed over the entire boat, blotting out the deckhouse as it passed over. The only thing that kept our large glass windows in the front of the deckhouse from caving in was the fact that our small tender was lashed across the forward deck. That was the way we carried her, as we had no davits. The cliffs and mountains along the southern coast of Haiti drop straight down into the sea; there is no beach, and only a quarter of a mile offshore the water is over a thousand fathoms deep — no place to be caught in trouble with the wind strong out of the south. Luckily, just before dark the crew found a rather protected bay where there was a good anchorage and there they remained for a few days until the wind died down and got a well-earned rest.

(To be continued)



Entering San Juan harbor. "Iorano," a 46-footer, was probably the first boat of her type to make the voyage from Florida to Barbados, and back

Mt. Pelee, its head wreathed with clouds, at the northerly end of Martinique



The "Forty-Fives"

Keeping the Racing Spirit Alive Among the Auxiliaries of Southern California

By

H. B. WARREN

On a week-end cruise at the Isthmus, Catalina Island

R. E. Chapin Photo

WHAT the Cruising Club is to the East Coast, the "Forty-Fives" are to Southern California. They enliven week-end cruises by turning them into races and foster the building of fast and able auxiliaries. They do not, however, promote long offshore contests, as does the Cruising Club, but leave this province to the Transpacific Yacht Club, of which most of the "Forty-Five" sailors are members.

Some twenty miles to the southward of Los Angeles Harbor lies Catalina Island. Its northern shore is strewn with delightful coves that call invitingly to the cruising man. The lure of Catalina Island anchorages has probably done more for the development of yachting on our southern coast than any other single factor. The town and harbor of Avalon are about three miles from the easterly end of the island, and in the 17-mile stretch between Avalon and Johnson's Landing, which is about five miles from the western end, there are no less than nine other coves fully as enchanting as any in the South Seas, and possessing the practical charm of accessibility. So clear is the water that the eye can follow the anchor line right to the hook, in three to five fathoms, the holding ground is good, and there is only the slightest motion when lying at anchor, for the swells that reach past the protecting arms of points are so reduced that they do not break on the beach, but merely glide back and forth among the pebbles with a sound that makes one yield to the thought of lazy lingering. The water is just right for invigorating swimming, but not warm enough to attract dangerous fish.

The summer westerlies provide a rail down, full sail breeze, producing ideal conditions for the many auxiliaries that cross the Catalina Channel. So popular are week-end cruises to "The Island" that the yachts which have traveled the course have almost worn a groove in which they can smell their own way across.

A few years ago the several owners of the smaller auxiliaries decided that if they could make races of their week-end cruises about once every three weeks, it would enliven the trip and offer a chance for some good fellowship into the bargain. Accordingly, the Southern California Forty-Five Foot Sailing Association was formed in February, 1927. As first organized, membership was limited to the owners of sailing or auxiliary yachts, of not more than 45 feet over all. The reason for this limitation was that these owners do most of their own work of upkeep and have more in common than do the owners of larger craft. It was also feared that yachts of widely differing size would not lend themselves to the proposed method of handicapping. In any given group of yachts, there are usually some craft which show decided superiority over the others, a situation which eventually results in lack of interest, as the same boats win repeatedly. Therefore, a system of handicapping based upon past performance, similar to one used for many years in the East, was adopted. The first time a yacht competes her allowance is based upon her Universal Rule rating; in her second contest, the yacht's performance in the first race is used as a basis, and in the third, the average of the first two performances. After that the average of the last three races is the basis for allowance. At first there were two classes, each consisting of yachts whose past performances were within ten per cent of one another. Here, again, appeared the idea that boats differing too greatly in size could not be rated fairly. But experience proved this belief erroneous, and since the first year there has been only one class.

It was soon found that many owners of yachts slightly larger than those of 45 feet were anxious to take part, and the association changed its rules to permit any yacht of not more than 31-rating, Universal Rule measurement, to compete. This rule held until last spring, when all hands were satisfied that past performance rating would successfully take care of any discrepancy in size. Now, any sailing or auxiliary yacht, regardless of size or type, is eligible. Nor is the right to race limited to members; all who wish to compete are welcome, regardless of whether they wish to become members of the

association. The dues are very low, only $2.50 a year at present. This amount takes care of such expenses as the organization incurs.

Thus it will be seen that the "Forty-Fives," in contrast to most racing organizations, have tended to liberalize their rules rather than complicate them. The results have been gratifying, for there is always a good fleet at the starting line. Every owner knows that each time he is beaten his chances of winning the next race are increased. And this is borne out in practice, as there is hardly a boat which has not raced more than six or seven times without winning.

Freedom and fellowship are the desired ends of the organization — factors that are often overlooked in the heat of competition. In the six years of racing among the "Forty-Fives" I cannot recall a single protest, which is something of a record. It would, of course, be foolish to contend that the rules of the "Forty-Fives" — or the lack of them — are solely responsible for this condition of harmony. Probably the fact that the racing is a secondary matter has much to do with the friendly nature of the competition. Though the trophies are of little intrinsic value, they are highly prized. Most of them are merely pennants, place being represented by different colors. There is also a pennant for the winner of the season's championship, a perpetual trophy given to the yacht which accumulates the greatest number of points. The suggestion has been made that the percentage system be used in figuring the season's championship, but the membership apparently feels that the point system does more to encourage owners to turn out for every race.

Naturally, the keenest rivalry has developed between certain boats. For instance, all Southern California has watched and laughed at the spirited contests between Douglas Radford's 38-foot yawl *Sindbad* and James T. Dickson's 40-foot schooner *Jubilo*, two of the "plugs" of the fleet. Their past performance ratings usually put them upon a boat for boat basis, practically, so that most of the other skippers crane their necks to see how the *Sindbad* and *Jubilo* are making it, when they should be watching the luffs of their own mainsails. When they sail special match races the spectator fleet sometimes has to be held in check by the Coast Guard. Dickson started his yachting career as a motor boatman, but became sufficiently enamored of sail to build the *Jubilo* as a "fifty-fifty" from Mower's design. Originally, she came closer to being a "thirty-seventy," with her 60 h.p. engine and her 400 square feet of sail. But with the lapse of time Dickson has leaned more and more towards sail, and *Jubilo* has sprouted a long bowsprit and a maintopmast, while her main boom has shot out like a sapling. Many kites, some of them as fantastic as the famous "moonraker" of the *Kumalong*, have made their appearance in her sail locker. At the same time her power plant has undergone a process of shrinkage, until she now carries only 20 h.p. in her mill and is clothed with 950 square feet in her working canvas. She is still a "Thirty-Seventy," but with reversed meaning.

When this rivalry was budding, back in 1927, the

R. E. Chapin

The sturdy little 37-foot "Wanderlure II," an Alden design now owned by Gus Dahlberg

Matt Walsh's "Thorobred" is the fastest of the fleet of "Forty-Fives" but has to give the others large time allowances

W. C. Sawyer

"Ocean Waif," owned by George L. Johnson, is another of the fast ones. Her hull looks like that of an old-timer above the water, but her underbody is that of a racing yacht

Sindbad, which is one of Tom Day's V-bottom "Sea Birds" enlarged to 38 feet, had the better of things, until one streaky day when Radford was caught in a pocket while Dickson picked up a favorable slant which enabled him to finish a few seconds to the good. This gave the latter the idea that he had a sailing hull rather than a power boat under him. It was at this time that the *Jubilo* blossomed out in a much larger suit of sails and her heavy motor was replaced with one of only a quarter the weight. For one whole season she triumphed repeatedly over the *Sindbad*, whereupon Radford had to go to the sailmakers, and what was probably more effective — to the mechanics, who installed a lighter motor with shaft set off center, carrying a feathering wheel. This turned the tables on Dickson, who replied with another feathering propeller as well as staysails set between the masts in place of the old gaff foresail. And so their racing has been nip and tuck again, to the joy of the other crews.

But the success of the "Forty-Fives" is not entirely due to rules and rivalries. The notorious Treasure Chest Race which the association stages every year is a large factor. Along in November the handicaps are pretty well established, permitting the boats to be started on their allowances instead of figuring them afterwards. An exact starting time is given each boat, so that, theoretically, the fleet should arrive at Ship Rock, at the Isthmus, in a bunch. After passing the rock, which is about half a mile offshore, motors may be started. Each boat must anchor in Cherry Cove and her sails must be furled before her crew may go ashore. When they land on the beach, a paper describing the location of the treasure, by a complicated traverse, is given the skipper, and the search commences. The treasure really was a treasure, for it formerly consisted of a pirate chest filled with what was then contraband but is so no longer. The contents belong to everybody, but the chest becomes the property of the skipper of the yacht in which the finder sailed.

It is noticeable that nearly all the auxiliaries of the past few years have a decided turn of speed in their lines, something that was generally lacking before. The building of the tubby old family boat has fallen almost entirely into the discard, except for genuine offshore work. And this is as it should be, so far as Southern California is concerned. Our waters are choppy, but not really rough, except on the island side of the Santa Barbara Channel. And even there good hollow spars properly stayed are in no danger, for forty-mile winds are the limit in summer — and are the exception. The chubby old hooker may provide more pleasure in the planning, but faster craft are no more vulnerable to wind and wave here and give infinitely more satisfaction to their owners.

While it is true that a formula rule, like that evolved by the Cruising Club, may do more for design in the way of eliminating undesirable features, our past performance rule is really better liked by the owners; it gives every boat, from lumber barge to racing machine, her chance at the trophies, while under any formula that can be devised there are always incurable losers. The proof of a rule lies in its results, and we are finding our rule most satisfactory. Since it went into effect the boats that have been built are nearly all fine racing-cruising craft. Apparently it has encouraged owners to build boats that can really sail, boats that can go to windward in a slop, and, at the same time, that can provide comfortable quarters for the owner.

The Skipper of the "Golden Hind"

But for a Certain Eventuality, the First Englishman to Sail Around the World Might Have Been Hung as a Pirate Instead of Being Made a Knight

By GREGORY ROBINSON

IN the autumn of 1580, a league or so southwest of Plymouth, some fishermen were hailed by a ship which they had been watching for some time; as she came slowly to the wind she revealed herself as a seaworn yet seaworthy vessel. Her sails were a patchwork of varying shades of mouse gray, the tar was out of the bolt ropes and there was a bleached look about her braces and bowlines; her upper works hinted that they had once been green and white, and as though not wishing to disturb the quiet scheme, she was flying no colors.

To the fishermen she seemed somehow familiar, and any doubts they may have had as to her nationality were put to rest when, in an unmistakable Devon accent, they were asked whether Queen Elizabeth still lived. The question answered, there came from the poop of the ship a cheery, "A good haul to you, my masters," and as she filled and bore away for Plymouth she showed to the men in the small boat a golden hind on her escutcheon. Their sharp eyes saw that quickly enough, but their more slowly working minds were some little while in realizing that there had once been a pelican painted where was now a golden hind, and that the man who had wished good luck to their fishing, was the man for whom half the world was looking — Master Francis Drake.

It was not altogether surprising that the realization was slow. The picture which had been in men's minds for many a day hardly seemed to fit the gray little ship and the weather-beaten man who had looked over the side. Wild tales of fabulous loot had been current throughout the country, and in all the taverns of the western seaports Drake and his doings had caused much barrel-thumping and banging of pots. Some seamen knew that there were good times in Spain if religion were kept out of conversation; they had happy memories of dark eyes and tresses, of sunshine and good red wine, and now they felt that the last farewells had been said to the ladies of Spain. To others, who had not found favor in the eyes of the dear Spanish ladies, or who were hot-gospellers and banged their Bibles with much force — as other men banged their pots — Drake was the man. As it was among the seamen, so it was among the merchants in the city; the elders were shocked and frightened, for Spain had been a good customer for many years, and with the news came the certainty that their trade must soon cease. It was to the younger merchants, who had all to make and none to lose, that the news of Drake's exploits was welcome. At the court, while some looked gay, others looked grave — the innermost circle round the throne turned not all one way. And how stood the center of all, Elizabeth, by the Grace of God Queen of England?

The leading actor in the great sea drama, of whom we have caught a glimpse as he passed onto the stage for the last act, knew perfectly well how the dear lady stood, and knew how things were likely to turn so long as she reigned Queen of England. His question to the simple fishermen as to the health of his Sovereign Lady has been quoted by a modern historian as showing the deep place Elizabeth occupied in the hearts of her people, and we may suppose in the heart of Francis Drake in particular. It may be so; but this is certain, that had the answer been that the Queen was dead, the *Golden Hind* would not have gone into Plymouth, and while eventually her captain might have gone into mourning, he would first have found a quieter and more remote haven wherein to deposit his cargo. He said as much as this himself — remarkably frank by nature was Francis Drake.

As the *Golden Hind* disappeared round Rame Head those fishermen minded how that same ship had left Plymouth three years before — yes, she was called the *Pelican* then — bound for Alexandria with a general cargo, and purposing to bring home a cargo of currants, it was said. But they had not believed much in that story, for it was not the sort of trade her captain had much experience in; and when a year afterwards the *Elizabeth*, one of the ships that sailed with her, returned home to say that she had seen the *Pelican* in the neighborhood of Magellan Straits and feared that she was lost, Plymouth folk were sorry for Captain Drake, but not surprised to hear that the currants were still waiting on the quay at Alexandria. After an interval, came another yarn that the captain had been caught and hanged by the Spaniards; then it turned out that someone said that they would hang him if they could catch him — and Devon folk reckoned they wouldn't, ever.

A week or so after the ship's arrival, country bodies along the West road saw a stout, short, bearded man riding a horse towards London, awkward, perhaps, in the saddle, but firm enough, and he rode in company with his men, any one of whom might have been taken for that shipman who, with Chaucer, had made a pilgrimage to Canterbury two hundred years before — "the hot summer had made their hue all brown." But they had been a deal nearer the sun than that older salt of Dartmouth, and their present journey was hardly a pilgrimage; they were, in fact, in attendance on their master who was on his way to the city to meet the shareholders of the little company of which he was managing director, at which happy meeting he was about to declare a dividend of 4700 per cent.

The principal shareholder was Elizabeth Tudor, and that gracious lady was right glad to see him. For six hours she sat closeted with her blue eyed sailor. He, wise fellow, had brought with him little sample packets of gold and pearls and emeralds, and little rolls of gay fal-lals to brighten any dull passages in his tale. Meanwhile, Bernardino de Mendoza, Ambassador of his Most Sacred Majesty Philip, King of Spain and the Indies, to the court of St. James, cursed and cursed and cursed in the cold outside.

\+ + +

Of the beginning of that memorable voyage there was little that could have interested the Queen, and most of it she had heard a year previously from Captain Winter

when he came home in the *Elizabeth*. It was a record which differed little from the voyages of the period — when men took what they might require where they might find, and trusted to luck whether it were called piracy or not. There was the usual run of the weather, the brisk northeast trade winds succeeded by the calms of the tropics, the beautiful sunshine of the southeast trades making by contrast more dreary and dreadful the rains and squalls of the southern latitudes. There was too little fresh water for drink, and a deal too much salt for comfort, intervals of sunshine hardly long enough to dry soaking shirts and sodden bedding, sickness and cursings and rotten food — no story this to set before a queen.

There was the story of the man who knew too much, with its terrible ending, which belonged to this part of the voyage. This the Queen cut short at its first telling, and in polite circles it has not been told since.

+ + +

As the *Golden Hind*, the *Elizabeth*, and the *Marigold* cleared Magellan Straits and burst through into the South Seas, they were met by a great storm during which the *Marigold* foundered with all hands. The *Elizabeth*, losing company, lost hope and returned home to England. The *Golden Hind* held on through bitter cold and blinding sea smoke. Driven far to the southward, after two weary months, Drake was able to bring her north again clear of the giant rollers into pleasant weather and at last to close the land.

Not a whisper of Drake's coming had reached the sunlit shores of South America. For thirty years no soul had succeeded in the Magellan passage, and Spain in her pride felt that where she had failed there was no hope of success for others. She had beaten most of the life out of the natives of the country, and while on the coastline there were fitful troubles to deal with, on the sea itself there was no danger and all ships went unarmed. So it was that in December, 1578, the *Captain of Morial*, a fine ship, lay snugly at anchor in Valparaiso Harbor with most of the crew ashore. Sighting a ship coming in from seaward, those remaining on board made preparations to entertain the newcomers with a jar of wine, and as the vessel entered they saluted her with a roll of the drum. The stranger came on and fell alongside, and the next moment the hospitable Spaniards found themselves driven below hatches. Having made all secure, Drake landed to collect a fair supply of fresh provisions and wine, a chalice and an altar cloth from the chapel; then, returning to the ship, he released his prisoners, save John the Greek whom he kept for a pilot, and towed his prize away. Rifling her as they went, she produced £80,000 in gold and a great cross set with emeralds. It was a bright beginning.

At Coquimbo, landing for water, the Spaniards were found in force, and Drake lost a man whom he could ill spare — it was a warning that he had better not meddle too much with the land. The new pilot brought them to a quiet haven where, unmolested, the Englishmen were able to put together a small pinnace. Having now abandoned hope of her consort, the *Golden Hind* stood away north early in the new year.

Drake, in the pinnace close inshore, searched the bays, while his ship sailed a league to seaward — so they worked their way up the coast. At Pisagua some of the crew, stretching their legs ashore, found a Spaniard sleeping on the beach with 4000 ducats in silver bar beside him; the silver went into the boat, the gentleman they left to his siesta. Another was met jogging along quietly with eight well-loaded llamas; they lightened the load by eight hundredweight of silver. This was very well, but Drake, who years before had climbed that tree in Panama, had seen the vision of a Sea of Gold and this seemed to him a sea of small silver. They must hasten on, too, for he knew that ashore the horses were struggling through the mountain passes to give warning to the settlements further north that pirates had broken into the South Sea.

So, under the mighty sunbaked cliffs of the Atacama Desert, the Devon men were sweating at the sweeps in the hot windless mornings, praying that the breeze would come good and hearty from the southward in the afternoon and waft them towards the treasures ahead. At Arica there was disappointment; three little vessels produced but a hundredweight of silver, but they had news of a well-loaded ship to the north. So on, in chase, only to find her at anchor with her silver hidden ashore. How they cursed! Some fool had set a light to a ship at Arica without orders, thus giving an advertisement of their coming. They made all sail on the deserted ship and let her drive masterless into the great ocean to fetch up God knows where, while the *Golden Hind* herself stood for Callao de Lima.

And coming towards that port one evening, Drake met a ship outward-bound from which he took, willy nilly, a pilot, by whose assistance, that same night, he slipped into the harbor to find a fair crowd of shipping, the watchmen asleep, the crews ashore carousing. After some quiet searching in the dark, his people found a quantity of silk and fine linen and a chest chock full of royals of plate; unfortunately, a Spaniard, pulling around the harbor and noticing some movement on board, hailed the stranger and had for answer, "The *Michael Angelo* of Chili." Unsuspecting, and looking for a drink — waterside folk were ever thirsty souls — the man came on board, only to jump quickly into his boat again, yelling, "Hell and pirates!" For in the gloom he had seen a cannon's mouth. Presently there was uproar, which steadily increased as Drake's men cut the cables, so that ships were driving and smashing helplessly about the harbor, much of their rigging hacked to pieces. As soon as the *Golden Hind* could collect her men, she weighed, and the last ruffle before the dawn took her clear of the harbor. In this affair one Englishman was shot, the second and the last to fall to the Spaniards.

As the sun rose, the breeze fell away to a flat calm and the *Golden Hind* lay still in the sight of the town. It was not, however, the approach of the two shiploads of soldiers which emerged from the harbor that worried the Englishmen so much as the thought that a ship which they had just heard of from a prisoner was probably increasing an already long lead. The name of this ship, they learned, was the *Nuestra Señora de la Concepción*, her captain San Juan de Anton, her destination Panama, her cargo the King of Spain's treasure. She had left Callao a fortnight before but, as she was calling at Paita, there was hope that she might be overtaken before reaching the golden city. Fortunately for the Spanish soldiers, who had no cannon, a breeze sprang up before their boats came within range of the English ship's battery or there would have been a sad slaughter. The sea darkened under the freshening southerly wind, all sail was crowded on the ship and away she flew in chase — a heavy handicap, but thirteen hundred miles to go.

At Paita, where they picked up a prize, they learned that the chase had dallied, and they knew that they were gaining hand over fist; the wind failed under the Line, but on they went with sweeps out and the pinnace towing ahead. Prizes they met, which gave them silks and silver lamps and such like gauds, a great golden

crucifix, and a chest of wrought plate; but it was news of how the chase fared that interested them more now, for every one of those fifty-six sunburnt seamen knew that ahead was the ship which might make good their captain's promise that they all would one day live as right good gentlemen in England. Kuph! How they sweated under the boiling tropic sun in that molten copper sea. As they swept past Guayaquil they learned that their quarry was just over the sea rim; the wind freshened again, and next morning, nearing Cape San Francisco, Captain Drake promised his golden chain, whereon hung his whistle, to the man who should first sight the chase, and not long after came a hail from the main topgallant yard: "A sail broad on the larboard bow!"

And there, sure enough, she was. But the wary gentleman who commanded the *Golden Hind* was taking no chances, he had no intention of frightening the golden bird, he did not wish any fluttering, he did not wish her to lose a single feather, but purposed taking her comfortably at nightfall. So, putting out drogues in the shape of empty wine jars to reduce his speed, his crew spent the long afternoon lying on deck with their arms beside them, talking of how they would spend their money. To them, as to most seamen who make long passages on hard bread and salt meat, Heaven was to be a place of unlimited fresh food and drink; in this West Country ship life would be all Devonshire cream, apples and hogsheads of cider, up along and down along, and there was to be no more sea. Meanwhile, below in his cabin, Francis Drake dressed himself with meticulous care for the evening's performance.

As the sun slanted, the chase stood towards them for company — the sea is a lonely place. As it sank and the darkness fell, the two ships closed. Drake sent some of his men into the pinnace which was towing alongside, and cutting adrift his drogues, passed under the stern of the *Nuestra Señora*. There was silence save for the gentle *slap slap* of the water under the bows and buttocks of the two slow-moving ships. Then a cheery "What ship is that?" from the Spaniard, and answer, "the *Michael Angelo*." With that the *Golden Hind* ranged alongside and a clear voice rang out: "Strike, Señor Juan de Anton, unless you would be sent to the bottom!"

"Strike?" thundered the Biscayan sailor, "What kind of a cruet stand do you take this for to strike to you?"

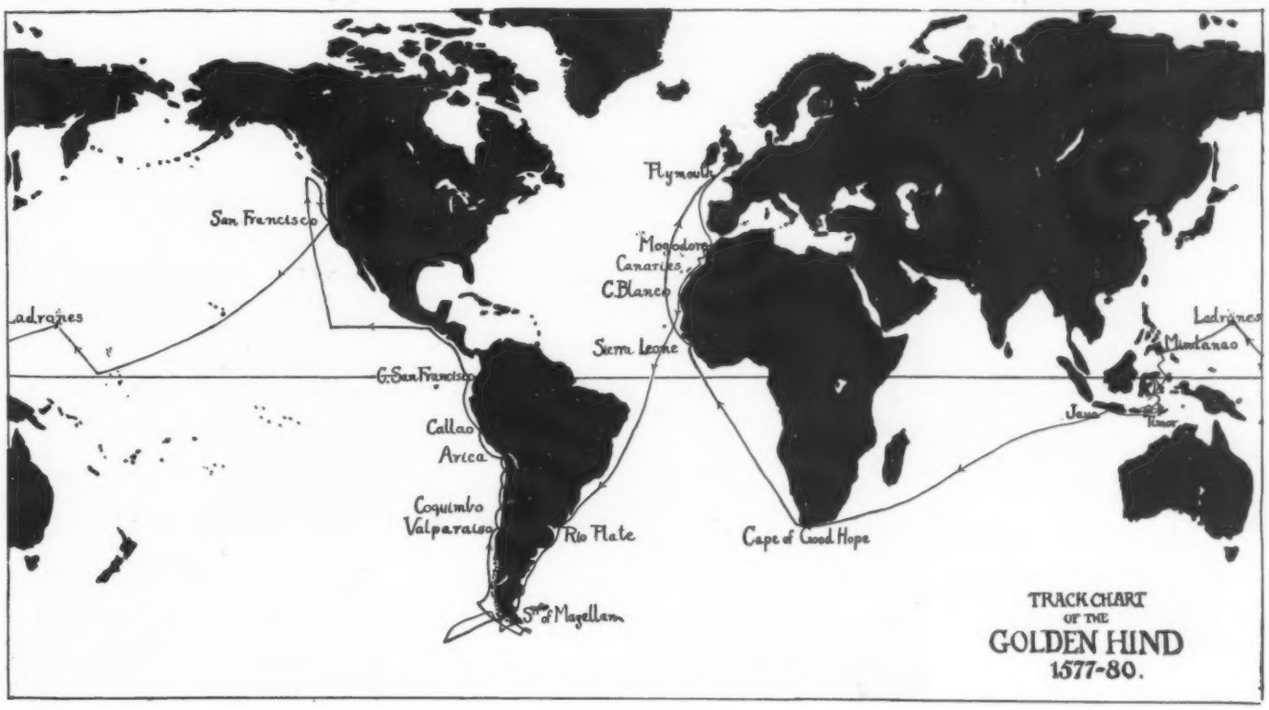
And now, at last realizing into what company he had fallen, he sprang to the helm, hoping to get his ship free. It was too late. A *sho-o-oh* of arrows and a crash of shot sent his crew scurrying below, the pinnace boarded on his disengaged side, and he, alone and without so much as a rapier to defend himself, could do nought else but surrender. Captain Drake, in a magnificent suit of armor, received his prisoner on the deck of the *Golden Hind*, showing him great kindness, which no doubt softened a little the hardness of his case.

The ships were brought on a westerly course for thirty-six hours, and when it was considered that they had reached a position which was safe from interruption, the great pillage began. Hour after hour Anton, sitting below, heard the rattle and thud of the hoists of silver bars and treasure chests as they were lowered on board. At one hatch, a gang was getting up ballast, and sand from Devon beaches was going overboard into the Pacific to make room for the precious metal. There were twenty-six tons of silver in bar alone, thirteen great chests of pieces of eight, nearly a hundredweight of gold. The deck was a litter of jewels and plate. Every corner of the ship was rummaged — be sure the golden bird was well plucked.

This was Master Francis Drake's cargo of currants, to fetch which he had set out from Plymouth.

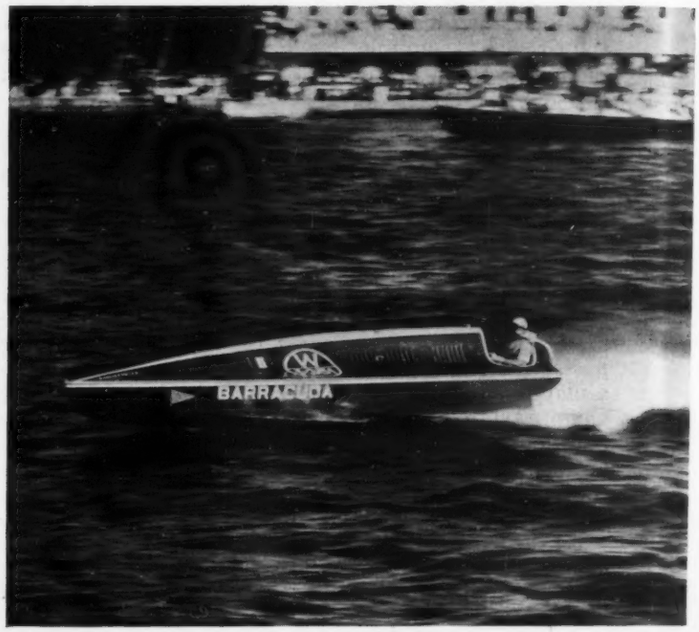
The Spaniards were now put again into their gutted ship, each with a little present of money. To the captain, Drake gave a valuable piece of armor and a German firelock besides a safe conduct or sort of letter of introduction, in case he should fall in with Captain Winter, who, Drake supposed, might still be in the South Sea. The letter was written in terms of piety, and contained

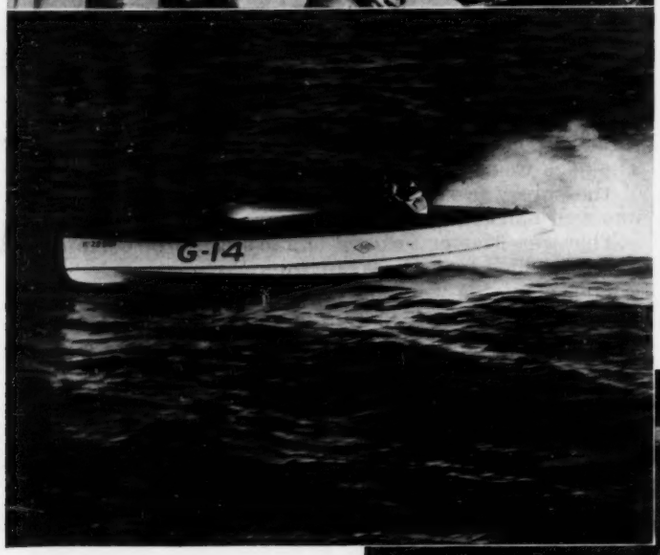
(Continued on page 106)



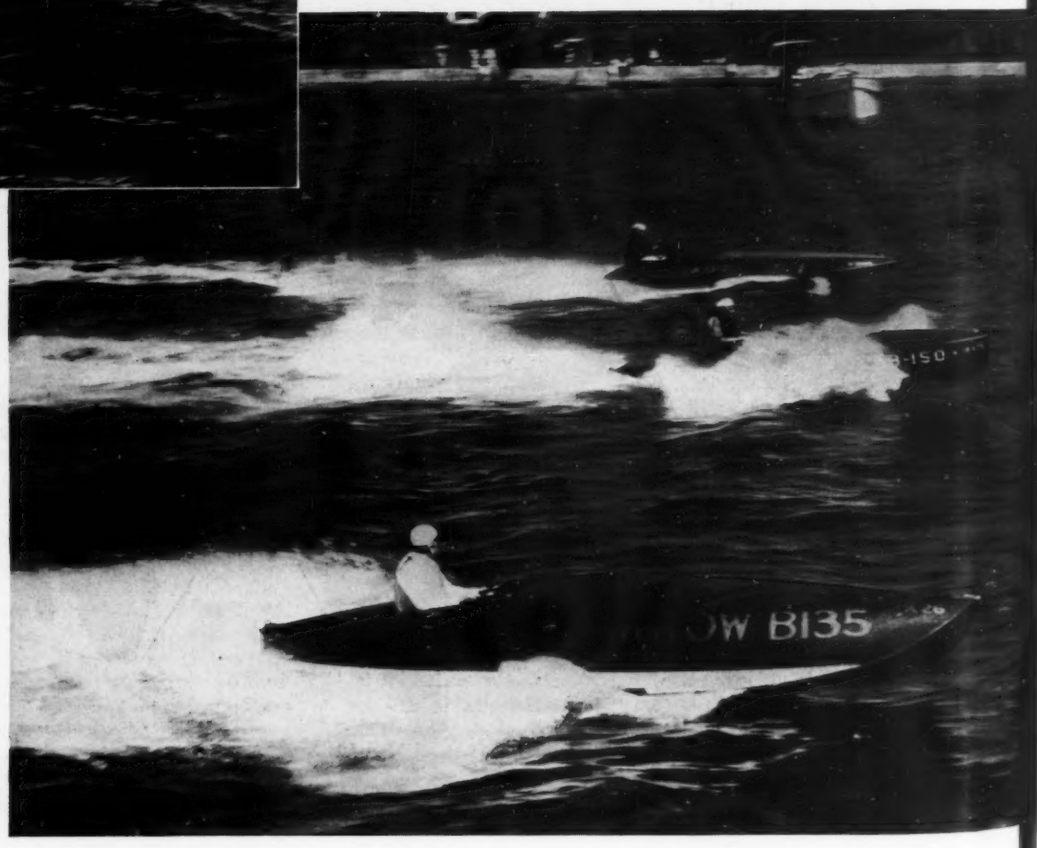
Standing, Horace E. Dodge, Count Theo Rossi de Montelera, Prince Carlo Maurizio Ruspoli, Antonio Becchi of the Italian team, William Horn and Charles Grafflin, who raced in the 12-Litre Class. Seated, Baron Alain de Rothschild and Jean Dupuy, captain of the French outboard team

"Barracuda," one of the Italian 12-litre racers, showed remarkable speed, although she made poor starts





J. Rutherford's "Imp," one of the unsuccessful American contestants in the 12-Litre Class



Start of the 151 Class, won by Luther Brown's "Skippy." These three boats differed widely in type and appearance

Photos by M. Rosenfeld

Honors Divided at Palm Beach

✦

Italians Capture 12-Litre Series, While American Outboards Win

"Lia-V" ran like clockwork and won the 12-litre series with ease

IN THE international motor boat racing at Palm Beach last month honors were divided. In the outboard events the American entries in the new Class X did remarkably well, while in the 12-Litre Class the Italian racers won with ease. Lake Worth is apt to be rough in any kind of a breeze, and on many of the days on which races were scheduled its usually placid waters were whipped into a nasty chop.

There were scheduled races for outboards, stock runabouts, 12-litre boats and a free-for-all. The principal interest was naturally in the international events for Class X outboards and the 12-litre racers. The final contestants in Class X were selected through a gruelling series of elimination races, the American boats meeting racers from Great Britain, France, Spain, Sweden and Hungary. While Class X is new to us and our engines did not develop anything like the 90 or more horse power produced by the huge foreign machines, our boats, all of them constructed of wood, were lighter and faster except in extremely rough water. To American eyes the foreign hulls looked odd and they were extremely heavy. In the final results, the leading places went to this country's entries, our boats making a clean sweep for the Colonel Green Star Island Trophy which was captured by Walter Everett with a total of 1161 points. Horace Tennes, who distinguished himself in all the racing, winning five first places in hot competition, was second with 1122, followed by Edward Hauptner, C. Meloon and Joel Thorne.

The William Randolph Hearst Trophy for Class X, which represents the world's outboard championship, was won by Tennes, with Everett second, Jean Dupuy, captain of the French team, third, the Marquis Gonzalo de la Gandara of France fourth, and Miguel Barella of Spain fifth. The winner's speed was 47.418 m.p.h.

The final team standings in Class X, figured on the A.P.B.A. point system, were: United States, 2834; France, 2535; Great Britain, 1760; Hungary, 1752; Spain, 1634; Sweden, 1614. Individual points scored were: Tennes, U. S., 1961; Ellsworth, U. S., 1845; Lukavecz, Hungary, 1752; Gandara, France, 1667; Oldenburg, Sweden, 1614; Turner, Great Britain, 1591; Dupuy, France, 1522; Everett, U. S., 1236; Rothschild, France, 1193; Giro, Spain, 978; Barella, Spain, 912; Sauerberg, U. S., 340; Treglown, Great Britain 169.

The 12-Litre Class is also a new one for American motor boats and the nearest racers to this type that we have are those built for the Gold Cup contest. Twelve litres, the limiting piston displacement, is about 732 cubic inches, while the upper limit for the Gold Cup boats is 625. The American entries were *Imp*, owned by John Rutherford, a veteran racer, *Delphine VI* and *Delphine VII* of Horace E. Dodge's fleet, and John Shibe's *Ethyl-Ruth IV*, which did not start. The Italian boats were *Lia-V*, owned by Antonio Becchi; *Barracuda*, owned by Count Theo Rossi de Montelera. (Both of these are driven by Isotta engines, the latter being supercharged.) *Niniette IV*, the entry of Prince Carlo

(Continued on page 116)

Jean Dupuy and his aluminum outboard. Notice the huge 6-cylinder motor with its two propellers which revolve in opposite directions, and the deep fin aft

George H. Davis

When Spring Arrives

In every yard along the coast and the Great Lakes the pleasure fleet, shining with fresh coats of paint and varnish, is preparing for the season ahead

John V. McClees

Fitting out time is here again and yacht yards are busy preparing the fleet for the coming season

A Springtime Reminder

A Few Suggestions for Improvements to be Made at Fitting Out Time

By CHARLES H. HALL

Drawings by Harry Johnson

LAST fall, when you laid the boat up for the winter, you had probably in mind a number of things you meant to have done before it was time to go overboard again in the spring. Having taken to heart the annual magazine sermons on the gentle art of fitting out, you doubtless highly resolved that this time the power plant would be thoroughly overhauled from the bed plate to the carburetor. But, if the engine was running all right the previous season, is this really necessary? I am reminded of the salty old seagoing engineer who stuck his head into an engine room during such a major operation and said: "She's been runnin' fine, mates! Let's tear her all apart and see what makes her go!"

If your engine worked satisfactorily last season, delivering its rated power — or, since you couldn't tell much about that without dynamometer tests, at least turning up the regular number of revolutions without any apparent laboring — why wouldn't it be a good idea just to leave it alone? Unless you are a pretty good machinist and have done considerable work on internal combustion motors, you may not make any improvement in the engine's condition and your ungentle ministrations may induce it to develop some new and annoying tricks. Probably it will be well to confine your engineering activities to cleaning out any carbon and checking bearings for wear, which you probably will not find. Modern engines are more nearly foolproof than the machines of the past.

If, however, your boat is an auxiliary with an engine "for use only when the wind fails," the power plant is apt to be more or less inaccessible, badly rusted, and with sticking valves and shorted ignition. If this is the case it is best to call in a professional to diagnose and treat its ailments while you work at fitting new running rigging or scraping blocks or some such seamanlike job. As the foreman once said to the new laborer who had asked for a wheelbarrow: "Phwhat does the likes of you know about machinery?"

So, instead of struggling with recalcitrant piston rings or grinding valves and seats away all on one side, think back over any difficulties you met last summer. Did the engine spit and sputter and die when you got that fine shaking up in a short head sea when all the dirt and scale in the fuel tank jarred loose and plugged the fuel pipe? You don't want that to happen again, do you? Well, clean out that tank thoroughly, wasting a few gallons of gasoline in the process, and shift the gas line so that it draws from an inch or two above the bottom of the tank, where it won't get all the dirt. Did you ever have to wriggle into a corner of the engine space, with the boat bouncing around like a rubber ball on a fountain, and try to blow through a clogged feed line? It's not much fun, especially when you get it clear and incautiously swallow a mouthful or two of gasoline.

While working on the feed line, see if you can't improve its location, running it so that it is out of the way and yet accessible, where it will not be stepped on

or liable to damage. Be sure that there's a good shut-off cock at each end so that the line may be taken down without letting all the gas run out of the tank. If there are electrical fuel pumps in the line, consider their location. See that they are not too low — I've seen them below the floor — or so placed that a loose wire will ground on the engine and make a spark.

The exhaust line may merit attention, for it is usually out of sight and neglected. It often wriggles its way aft from engine to transom, with unnecessary bends and no proper drain. The outboard end may invite the entry of the whole broad Atlantic while the forward end is rusted fast into the manifold. The muffler, if any, may be a sooty, scaly mess that helps to build up back pressure. This is a good time to install a real exhaust line, made of copper, with a few feet nearest the engine water jacketed. While the ideal layout has the line running straight and down hill from engine to outboard end, this is seldom practicable in a cruiser. The engine is set too low and the cabin floor interferes. The line usually turns down, then up and then aft and overboard. At the outboard end there should be a "U" bend, with the loop of the "U" up so that water will not run forward to the engine. Of course, there must be a drain at the lowest point of the line, and a drain on the jacket.

If the woodwork next to the exhaust line shows any signs of charring, insulate it, and have the hole in the transom large enough to clear the pipe, with flanges inside and out to hold it. The line should be well braced against vibration.

What becomes of any gasoline that may overflow from the carburetor? Is there a pan to catch it, or does it spill on the floor and find its way into the bilge? If there is a pan, is it connected to the intake manifold so that any gas will be drawn out? Is the pan screened? Is that screen kept clean or do you let fuzz and dirt collect on it? In case of a backfire, will the flash reach the bilge? Or the pan? If so, there may be trouble. If the carburetor is mounted low on the engine, it will be well to fit an air intake leading to the top of the cylinders, with a good wire mesh screen on it.

Can you get at the seacock on the circulating water intake without being a contortionist? While the piping should be short and as direct as possible, the intake sea connection should be easy to get at. Its position is important for it must be low enough not to be exposed when the boat rolls, yet not so low that mud or sand will be sucked in if she takes the ground. Have a neat scoop on the outside with a good strainer on the hull. Also a seacock, of course. In fact, every opening in the hull below the water line ought to have its seacock, with its handle where it can be reached in a hurry without tearing the ship apart. Flanged seacocks are bolted directly to the outside planking while the screwed type are screwed into the planking and secured with lock nuts.

Some builders fit the bilge suction as a branch of the circulating water line, but this means that there is a chance of having the engine overheat if you forget to shift back to the sea connection after pumping the bilge. It may also allow dirt from the bilge to lodge in the cylinder jackets. It is better to have the two lines

independent even at the cost of a little more piping. As the lowest point in the bilge at anchor is not the same as when under way, it might pay to have two branches to the suction, with a two-way valve at the junction or a valve in each branch. The bilge pump should have its own discharge, preferably above the water line.

A carelessly packed stuffing box, or one with the gland screwed up too tight, may mean a scarred shaft, especially with a quick turning engine. While still on the beach, it might be well to fit that new propeller of just the correct diameter and pitch and surface to get that extra fraction of a knot you've been wanting. And if the after face of the sternpost is square, dubbing off the corners will give a better flow of water to the propeller. If the shaft is exposed, struts and sleeve couplings (if any) should be fitted with proper fairwaters so that the boat is not dragging square corners through the water. Even a bare shaft makes a good deal of resistance.

What can be done to make life easier for the cook? Will an additional locker or a couple of shelves be an improvement? Is the ice box satisfactory? The new mechanical refrigerators use almost all of their space for food stowage instead of giving up a large percentage of it to ice. An electric refrigerator may

(*Continued on page 110*)

Slick Her Up, Boys!

An Old Hand Drops A Few Useful Hints

By

Samuel Wetherill

Drawings by Harry Johnson

IT'S BEEN a tough winter, Mates. I guess you won't argue with me on that score — at least, you won't if you have been hibernating anywhere along the Atlantic seaboard (Florida included). Snow still covers the ground, and ice still fills the harbors as far south as Chesapeake Bay. But spring is right around the corner, and it's just about time we put the winter cover in storage and the good ship in commission. So, this being the case, with many owners doing their own commissioning, or a major part of it, it may be pertinent to set sail with a few remarks about painting and varnishing.

No, I don't claim to be an expert on the subject of paints and varnishes, nor on how to paint your boat. However, I have worked pretty hard on a number of boats I have owned — used up huge bundles of sandpaper — spilled a lot of paint and varnish around — talked to "boss painters" and paint makers — made plenty of mistakes — and found out a few facts from actual experience. So here we go with a bit of advice to the amateur sailor who, from choice or necessity, will soon be wielding the sander and the paint brush.

Let's start with the bottom of the boat. You've probably been told to work from the top down, and I agree. But, theoretically, we'll reverse the process — it seems to come easier that way, for some obscure reason or other.

If your keel, lead or iron, is pitted, furrowed, or just plain rough, and you want to fair it up and make it reasonably smooth, get a can of "trowel cement" from any paint store. Use it with a putty knife to fill the holes and pits. It's easy work, and the dope will stick to either iron or lead, and harden so that you can sand it smooth. After this preparation, paint your metal keel with a heavy coat of red lead — especially if the keel is an iron one. Don't put copper paint on raw iron. Copper and iron fight when in contact with salt water — electrolysis is the word the experts use. And that's one reason why you often see iron keels so badly pitted.

Don't put a coat of copper over the red lead paint until the latter is thoroughly dry. Allow at least a week of good drying weather. If you don't, the linseed oil in the red lead paint will work out through the copper paint, and the latter will be ruined as far as anti-fouling properties are concerned — marine growths eat linseed oil for breakfast, dinner and supper.

Sand off the wooden underbody — thoroughly. Putty up any open seams — the usual putty is made of one part white lead and one part whiting, although there are other good putties. For filling blistered spots, add some litharge to white lead in oil — this concoction will dry sooner into a very hard surface, will "stay put," and can be sanded nicely.

If you're going to put on a single coat of copper paint, put it on just before the boat goes overboard — the vehicle in the paint won't dry out and lose its good properties. If it is to be a two-coat job, put the first coat on any time, and the second just before launching.

If you expect to scrub off around the water line during the season, use a hard, smooth "boot top" paint at this point. It will stand a lot of scrubbing, whereas all ordinary bottom paints will be scrubbed off in no time at all, leaving the wood bare.

Racing bottoms should be "built up" during the winter or early spring. Several coats of racing paint, with plenty of elbow grease applied to the sandpaper after every coat. Work up a surface which will stand scrubbing all summer. You can't expect to paint a racing bottom during the season and get best results — the paint won't dry and harden for rubbing in the time usually given a summer haul-out.

Now for the topsides. Proper preparation of the surface is half the battle. Wash off the topsides thoroughly with a strong solution of fairly strong washing powder. This will not only clean off the accumulated layer of grease and dirt, but will soften up the hard, brittle paint so your sandpaper will get a real grip, rather than bounce off a

glass-like surface. After cleaning off and drying, do the usual puttying, sanding, etc., with emphasis on the sanding. Wrap the sheet of sandpaper around a small block of cork or wood — this will help take down the high spots, and result in a fair surface. After thorough sanding, put on a coat of flat paint, following a day or so later with a coat of your favorite enamel, gloss, or semi-gloss paint. Use the same procedure with the stripe at your water line, if you have one.

Let's tackle the bright work next — a big job, and an important one. Your procedure will depend entirely upon what condition it is in. Let's say it is in pretty bad shape, thick with old, discolored varnish. Get busy with the paint remover — the cream variety is preferable, as it doesn't dry up as fast as the liquid kind, nor run off vertical surfaces, such as cabin trunks. The trick in using paint remover is to use plenty of it, and give it enough time to work. If you do this, you can get practically all the varnish off with a putty knife, followed, perhaps, with No. 1 sandpaper. You may have to use a scraper in spots. Get two or three kinds of scrapers, of different sizes and shapes — they'll all come in handy, and lessen your labors, besides doing a better job. Finish off with fine sandpaper, rubbing with the grain to prevent scratching the wood.

Having prepared the surface, put on the first coat of varnish — not too thin, or too much brushed out, as the bare wood will soak the first coat right up. When dry, sand the first coat, brush and clean off the dust thoroughly, and apply a second coat. Repeat the process until you have a durable surface. How many coats? Well, three coats are sometimes recommended. From personal experience, I advise four or even five coats on bare wood if you want a lasting job. Try both methods and judge the results for yourself.

Good, old-fashioned spar varnish is generally considered to be the most durable. It takes a long time to dry, however, and may be ruined if a rainstorm comes up, or a windy day sprinkles dust all over it. One of the four-hour, or "quick drying" varnishes, is more commonly used. Most of the established varnish and paint makers turn out a satisfactory product, but beware of the cheap brands — you'll probably come to grief if you use them. Varnishes are made from different kinds of gums — some natural, some synthetic. Good varnish is made from both. Take your choice.

Now, suppose your bright work is in fairly good shape — the varnish isn't very thick or discolored from age. In this case, wash it off thoroughly with a good washing powder — this will soften up the surface appreciably. Rinse off, and rub down with "wet" sandpaper — you'll do the job twice as fast, with a third less sandpaper. It may be sloppy going, but it's a highly efficient way of doing it. Of course, you can use dry paper if you want to. After cleaning and dusting, apply as many coats of varnish as you think wise, not forgetting to sand each coat before applying the next.

Decks come next. If they're of the varnished variety, proceed as with bright work. To help cure slipperiness, use a bit of powdered pumice in the varnish. Or, after applying straight varnish, sprinkle the deck with fine sand from a pepper shaker. Pumice will dull the gloss somewhat, sand not so much.

If you have a canvas deck, in good condition, give it a coat of flat paint of the desired color, followed by a coat of your favorite deck paint. The flat paint will help greatly to fill up small cracks, as it has linseed oil in it, but no varnish, so the oil paint works into the cracks quite nicely, whereas a hard deck paint, made with varnish, is apt to "bridge" the cracks, and they gradually get worse and worse.

A canvas deck, with deep cracks in many layers of old, hard paint, is a problem. You can get the old paint off with paint remover, though it's a tough job. Some people claim that you shouldn't use paint remover on a canvas deck. Well, I've used it successfully, and I know of others who have done so. Perhaps you won't need to get all the paint off — just several layers of it, leaving a coating of paint on the canvas. Use your judgment as to this. If the deck paint has cracked so badly that the canvas under it is also cracked, then you're about licked — you need a new canvas deck.

Wooden, uncanvassed decks often leak, due to drying out. Here's a cure which has frequently worked well: Get deck thoroughly dried out, then put linseed oil in the cracks with an oil can. The oil will swell the wood, and won't dry out for a long time, and you'll have a tight deck all summer, no matter how hot and dry the weather. This treatment has been used successfully on lap-straked dinghies by numerous people.

When it comes to varnished spars, proceed about as you would with any bright work. By using coarse steel wool, or wet sandpaper, with a solution of one of the milder washing powders, you'll get a surprising amount of old varnish off with very little effort. Clean off with fresh water, sand, and varnish. Painted spars should be handled much as you handled the hull.

Here are a few general hints:

You can't do a good painting or varnishing job with an old, dirty, stiff brush. If you're using the brush every day, hang it in a can of linseed oil — this keeps the air from hardening up the paint. Brush out the oil before using. Don't use this method with copper paint brushes — you don't want to mix linseed oil with copper paint, as pointed out previously. Clean your copper paint brushes out thoroughly after using with "turps" or gasoline, and start with a fresh, clean brush next time.

Old, hardened brushes can be brought back to life by means of liquid paint remover, followed by a lukewarm solution of mild washing powder. It's often a mean job. Probably better to buy a new brush.

Don't paint or varnish in cold weather if you can avoid it — the paint or varnish gets thick and tacky.

Don't paint or varnish on a damp day, or on a surface which is not absolutely dry and clean.

No bare wood surface should be left any length of time without a coat of paint or varnish. If it is, it may dry out, check, or become discolored, or "weathered." This is particularly true of oak. Once a wood becomes weathered, it is an awful job to bring it back to its original condition — perhaps impossible.

Don't thin out paint unless really necessary. If you must, use the proper thinner, as recommended by the manufacturer. Some paints are thicker than others — they're made so purposely. Read the directions on the can.

Never thin varnish if you can possibly avoid it. If you must, pure turpentine is probably the best thinner. If varnish is cold and thick, place the varnish can in a bucket of warm water, keeping it there as long as you are using it. It is better to brush it out painstakingly than it is to thin it. Warm varnish on a cold surface is a bad combination.

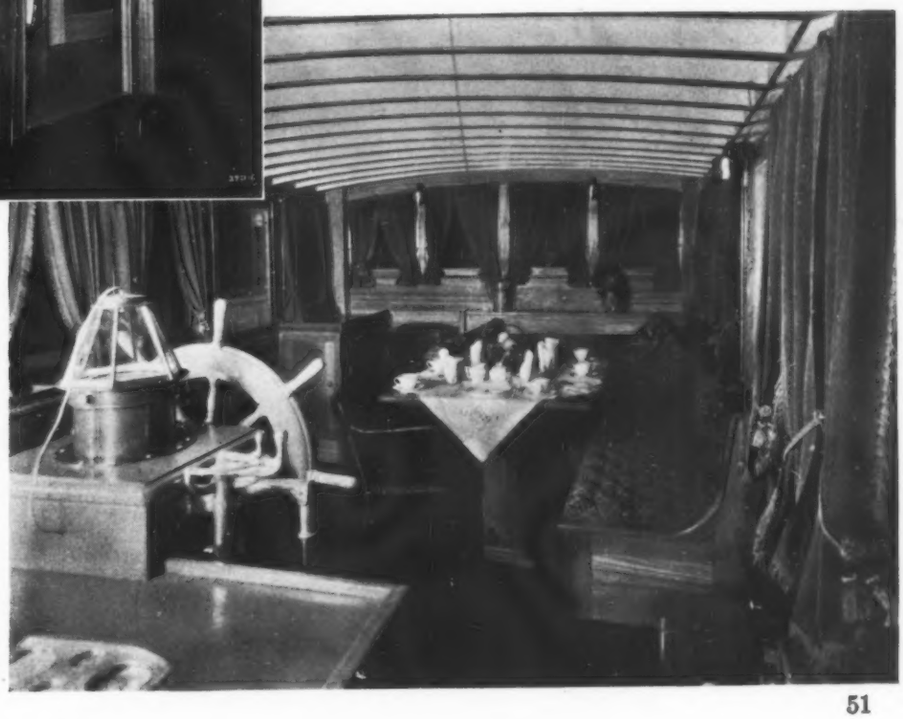
A newly-varnished surface which, when dry, feels rough, is caused either by dirt from your brush, or dust and dirt from the atmosphere. Or maybe dirt in the varnish itself. If bubbles appear while brushing out the varnish, use several long, light strokes of the brush to remove them.

To thin out enamels, use linseed oil. To thin out flat paints, use turpentine.

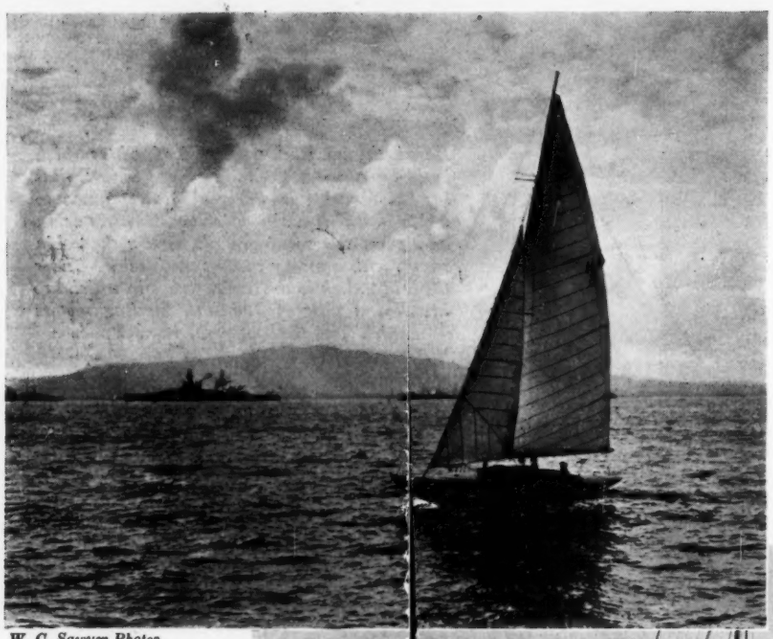
A New Vinyard "Fifty"

Here is the new stock cruiser fifty feet long which is the latest product of the Vinyard Ship Building Co. Forward are the crew's quarters, next to which is a well-equipped galley. Owner's cabin and guest stateroom are aft, under the cabin trunk, with a roomy cockpit abaft them. Under the bridge deck is the engine room in which are installed a pair of 180 h.p. Sterling motors which drive the boat at an 18-mile pace

Above is the owner's stateroom, with a glimpse of the stairs leading to the deckhouse. Thirteen feet in length, this deckhouse is used as a combined dining and living room



Ray Chapin

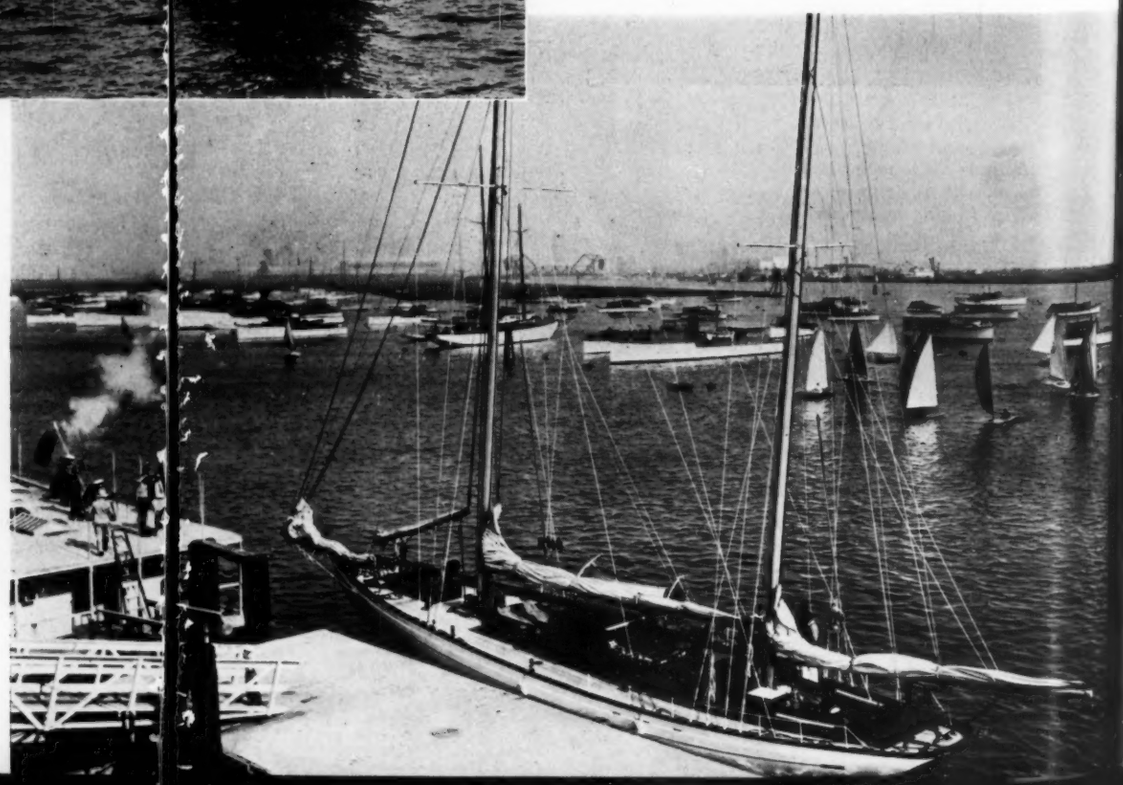


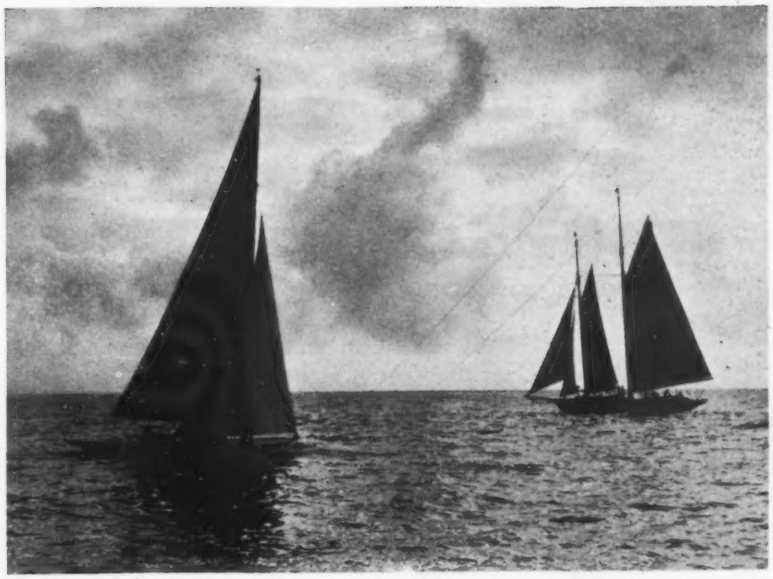
W. C. Sawyer Photos

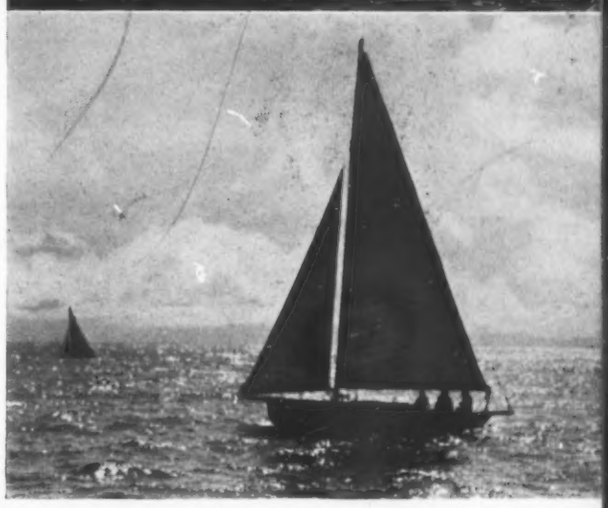
As usual, the "Sixes" furnished the most interesting racing. Here is the start of the class on the second day

"Tempe V," one of the Pacific Coast One-Design Class just introduced at Balboa

A veritable swarm of small fry raced each day in the protected waters off the clubhouse







William Bartholomae's "Mystery," winner in the Six-Metre Class. Right, top, "Marin," winner in the Eight-Metre Class, crossing the veteran 20-rater "Pirate." Bottom, one of the new "Common Sense" Class, 28 feet in length. Matt Walsh won the trophy in this class

Record Fleet Sails at San Pedro

Southern California's Mid-Winter Regatta Brings New Champions to the Front

By

WALDO DRAKE

SOFT, balmy weather crowned a completely new array of champions in Southern California's eighth annual Mid-Winter Regatta, sailed on San Pedro Bay February 22nd to 25th. Feathery zephyrs out of the south wafted the light-weather boats along to long-sought titles, while crews of the huskier champions of other years rolled about on glassy seas and prayed — and cursed — for a capful of wind.

The turnout this year was the biggest ever, a total of 129 sailing craft in fourteen classes actually racing, of which five divisions were the little one- and two-man windjammers racing over the protected courses behind the breakwater off Cabrillo Beach.

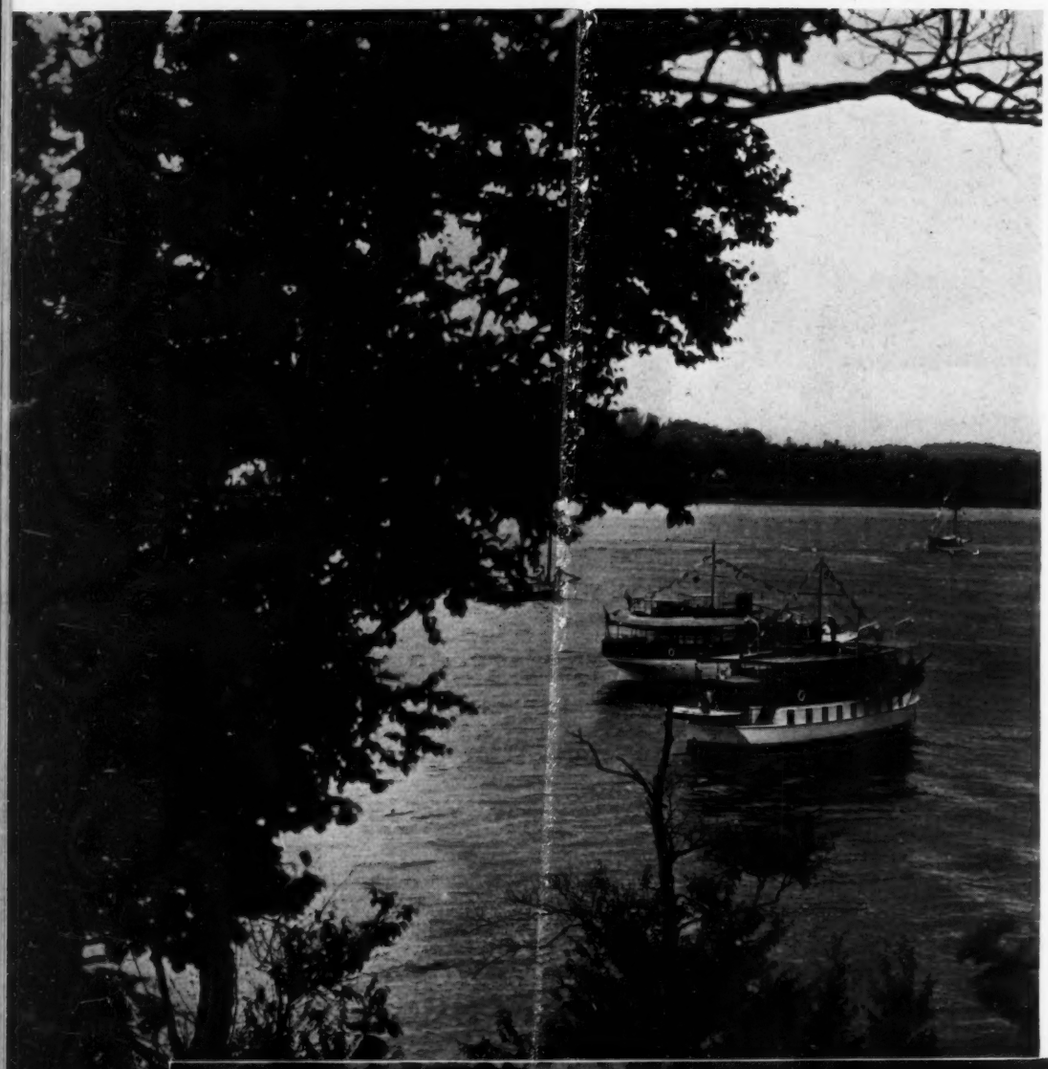
Victory in the Six-Metre Class thus went to Bill Bartholomae and his sleek *Mystery* (ex-*Figaro V*), a witch in light airs, which, none the less, was excellently handled by skipper and crew to win the Meyer Trophy from Tommy Lee's defending *Caprice*. In her four starts *Mystery* took a first, two seconds and a third to amass 24¼ points against *Caprice*, with 22½, whose two victories and a third were nullified by a fifth place in the third race.

Young Bill Slater piloted his perennial *Lanai* to third position among the seven "Sixes," just a nose ahead of Donald Douglas' powerful *Gallant*, again skippered by Ted Conant. The rear guard was Russell Simmons' little *Clio*, A. Rogers' *Synnove*, and Virginia Adams' *Harpoon*, which failed to display her old magic in light airs.

Caprice failed in her valiant defense of the cup chiefly because she went adrift during the night of the second race and suffered a badly damaged keel and rudder, discovered too late for repairs until after Saturday's race. Aside from this casualty, *Mystery* and *Caprice* battled about the course neck-and-neck every day. The finish of the opening race, in which *Caprice* picked up six boat lengths in the final mile, ran through *Mystery's* lee on a close reach, and then nosed her out by a scant three feet at the line, was the big thrill of the week.

Among the "Eights," the long reign of Owen Churchill's Olympic champion *Angelita* was brought to an end by her old enemy, *Marin*, restored from a watery grave by Ed Lampton. The weather was made to *Marin's* measure, and Lampton, tyro among Coast racing skip-

(Continued on page 93)



Cruising

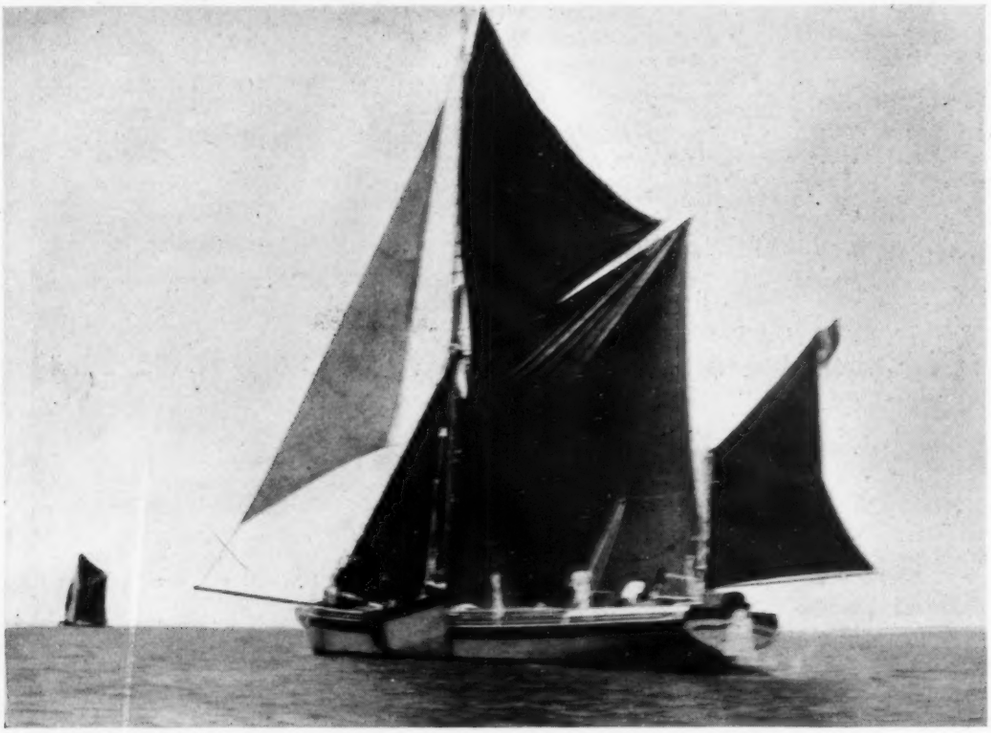
An anchorage near the river's mouth, New London

A harbor on Buzzards Bay

A snug cove protected by outlying islands

At the day's end, Vineyard Haven

Photos by E. Levick



"Veronica," verging on thirty, five times champion of the Thames and twice champion of the Medway

"Barging In"

A Yachtsman Looks at the Thames Barges

By C. H. J. SNIDER

IF YOU really want inside information on why the World Monetary and Economic Conference in London, last summer, failed of its high purpose, I shall tell you. This is strictly, of course, under the rose.

The conference got well away on the twelfth of June, 1933, under the auspices of the League of Nations and a ringing speech from King George. I was one of the battery of world-commentators, William Allen White for America and Sir Arthur Salter for Britain being my opposite numbers.

When I opened my *Times* of June 15th I saw that the annual races of the Thames sailing barges were to begin that morning, from Gravesend to the Mouse. Now world conferences are a commonplace, but a Thames barge race is an *Event*, with a capital "E." So, leaving Cordell Hull and Ramsay Macdonald to do the best they could with the world, with such help as White and Salter might give, I beat it for Gravesend.

The conference went smash. I had, unwittingly, struck it a blow from which it never recovered, though it lingered on at vast expense for six more weeks. I am sorry the new heaven and the new earth had to be postponed on my account, but I still think those barge races were worth it.

Grandfather Thames has sired many strange craft since the skin-sided coracles of Cassivelaunus scurried up his broad bosom before the banked oars of Roman triremes, and not the least engaging of these is the "spreedy," as deepwater men call her, known locally as "stumpies," and so forth, and, generally, as Thames barges.

Fourteen of them were dodging off and on in the Lower Hope when I got to Gravesend, hired a "put-putter" and a seasoned waterman from Peppercroft place, and dashed into the fleet. With their great tanned wings spread — crimson, orange, brown and scarlet contrasting with the cream and white of light racing canvas — they made me think of those gorgeous butterflies we in Canada call King Williams, after him of Orange, whose Glorious, Pious and Immortal Memory is honored by the banging of drums annually on the Twelfth of July.

The entrants were in three divisions: The sea-barges, officially known as the coasting class, big 400-tonners which trade to Belgium and Holland and France; the bowsprit class, self-explanatory, which go to the Channel ports; and the staysail class, which stick to the rivers. Staysail, with the bargees, is the word for the yachtsman's jibtopsail. They have other funny usages, such as calling the jib the spinnaker. Staysail barges are those without bowsprits. "Stumpies" are, properly, those without topsails. This was the original barge rig, and has almost disappeared.

The Thames barge is emphatically "all boat." She begins with a plumb stem and ends with a plumb stern. So much of her is given up to hold that the rudder is hung outdoors. She is so flat on the bottom that she sits bolt upright when the tide leaves her, unless the shore

itself has a slant. She would never get to windward at all but for the tide and her leeboards, which hang, broad end down, just abaft the main rigging. Her bulwarks are vestigial. She loads till the water laps the covering board, she battens down with thick tarpaulins till her cambered deck is like the sides of a bottle, and she goes to the world's end with seas sloshing over her like a breaching whale.

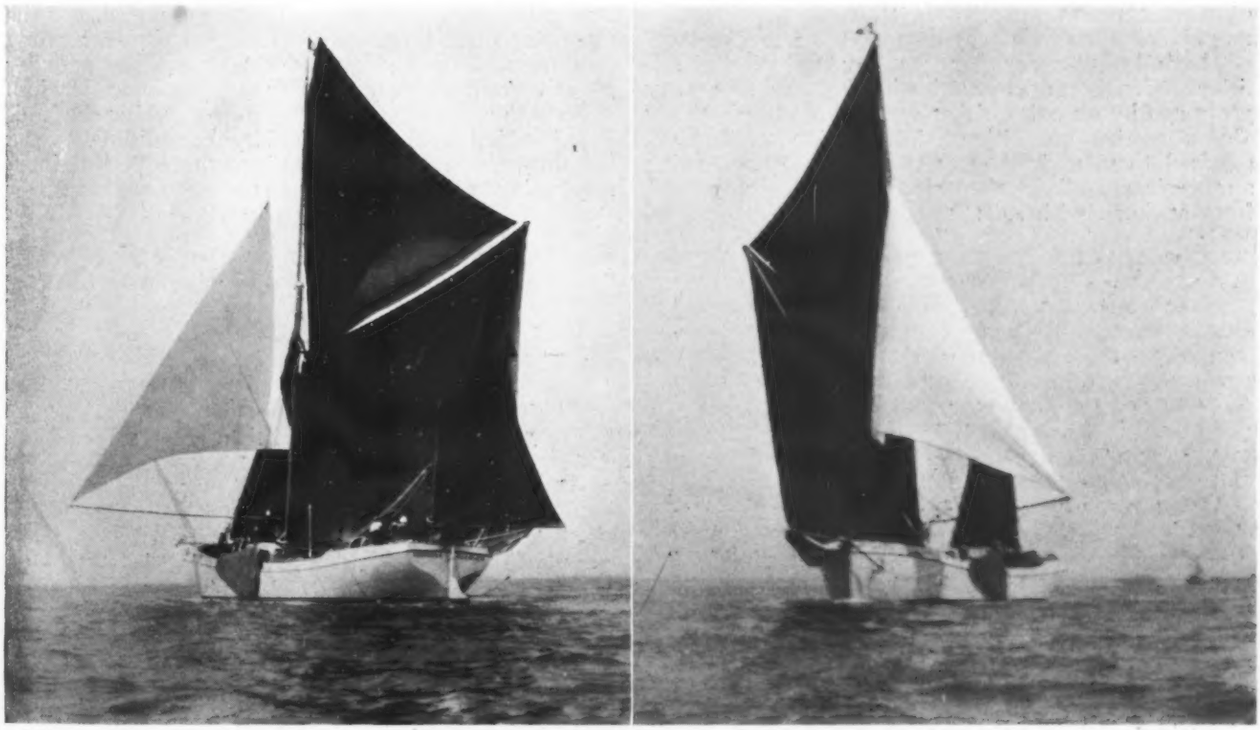
It is said that Thames barges have reached South Africa and Australia. It is hard to believe that, especially after one look at the rig. Still, under this very rig, most emphatically inappropriate for offshore work, they do make voyages across the North Sea and the English Channel to Antwerp and Rotterdam, from London, and down to the Isle of Wight. During the war the French and Belgian ports were full of them, swimming deck-deep with tons of t.n.t. and millions of shells, with which they had swum the Channel, diving through the big seas like the German "subs" which chased them.

It is the rig that makes the barge, though the hull, too, is distinctly characteristic. Sprit-ketch would be the technical description. There is a stout, stumpy mainmast, stepped well inboard; usually, a very long springy topmast, that houses, but cannot clear the cap even when the heel is on the deck. Then, on the starboard side of the mainmast, longer than the lowermast itself and almost as stout, is the sprit, slung by heavy wire lifts from the masthead to its middle, and still heavier heel-ropes and purchases to its heel or foot. Wire vangs with purchases control its peak from the deck, setting up like backstays. The head rope of the mainsail, an enormously heavy piece of bolt-roping, takes the place of peak halliards. It is stretched bar-taut by the backward thrust of the sprit. The mainsail brails to the mast, from the throat downward. The head remains stretched taut to the peak of the sprit. The sail is never reefed. There are reef points in it, but they are used only to gather it up clear of the huge deckload of lumber or hay; or a few points may be tied in to lift the foot of the sail and give the helmsman a view forward. The mainsail is as all-embracing as a spinnaker, for it is loose-footed and cut round. There is no boom, and the sheet is hooked into the clew and to two cringles above the clew, so as to get a down pull on the vertical leach. Spritsails have a great tendency to ride up. Sail is shortened not by reefing, but by hauling in the throat brail, which cuts the mainsail into two not very efficient triangles.

Above this mainsail is set the topsail, of great hoist and breadth. It sheets home to the peak of the sprit, and it has a short club or headyard which gains it the full benefit of the long topmast. The barge is often sailed under her topsail, with the mainsail brailed.

Forward, the "spreedy" — so nicknamed from her sprit rig — has three headsails; an enormous loose-footed tanned foresail, spreading abaft the mast like a Genoese; a white jib set flying; and a jibtopsail. Aft, she has a small mizzen set on a sprit, but brail controlled, with the foot hauling out on a boom. This boom sheets to the outboard rudder, and the principal use of the mizzen is that of a steering sail. With the rudder hard over, the mizzen is hauled to weather by the same motion and the stern is pushed away from the wind. Spreedies never miss stays.

All sails are tanned, the possible exceptions being the jib, jibtopsail, and spinnaker. All rigging is "running," for while the barge may have to face the North Sea in its fury she also has to negotiate bridges by the dozen. The bowsprit is topped up, with the jib furled along it, until it parallels the jibtopsail stay, which is now set up on the stemhead. Many barges in the river trade carry no bowsprit at all. When they get up to the Pool, in London, they come up on the forestay — it is set up with huge purchase blocks — and lower the whole rig except the squatty little mizzen, right aft until the great sprit rests in a crutch, with the mainmast



"Reminder," of Harwich, made a great picture going free

beside it. The mast is pinned at the heel and housed in a tabernacle or slot, which allows it to be lowered without going adrift.

Most of the barges which raced from Gravesend this fine June morning, while the world conference waited, were painted black, with gray or green bottoms. Two of the biggest were white and green, the *Will Everard* and the *Greenhithe* — steel-hulled, spick and span, with varnished woodwork, quarter boats swung on davits, and high wheelhouses making you think of the bridges of steamers. These were 400-tonners, about 110 feet long and 25 feet beam. They had to have seven feet of side to qualify for their class, but their draft was still "next to nothing" with leeboards up, but ten feet or more with these round-ended steel wings lowered.

All the other barges were between 75 and 90 feet in length. The most picturesque was the *Marconi*, with the slings of her enormous sprit painted in contrasting bands of color and a big blue circle painted in the belly of her tanned topsail, proclaiming her ownership by the Portland Cement Company. Cement, stone, coal, hay and coarse freight generally are the cargoes on which these barges thrive.

They all shone like new pins, with fresh-tarred topsides and bulwarks and deckhouses of white, blue, green, gray or red. Much giltwork, too, about the name-scrolls; and the flat of the transom was painted white, green, blue or orange, in contrast with the black outboard rudder, and black or lead-colored hull.

They were even gayer aloft than alow. From the russet mizzen of each flew the house-flag — most barges are company-owned — a square extended by a staff at the head, from the small mizzen sprit, and at the trucks of the tall maintopmasts waved the burgees. Crews were much more smartly dressed than racing yachtsmen; each crew was uniformed throughout. Dressing up for a barge race is as much a part of the river show as the coster's pearlies on a bank holiday.

The course was down to the Mouse Lightship in the open sea; the wind was light, up the river, a gentle summer breeze; the tide ebbing, helping the racers down.

They all went over on one starting gun, without collision. Barge races are an old institution, started seventy years ago by an enterprising contractor named Henry Dodd, carried on without interruption until 1907, dropped then, revived after twenty years, and going strong since 1927. In the old days they used to start from anchors, with sails furled, and the scramble of getting under way afforded great opportunities for the development of that eloquence for which bargees are unjustly famous.

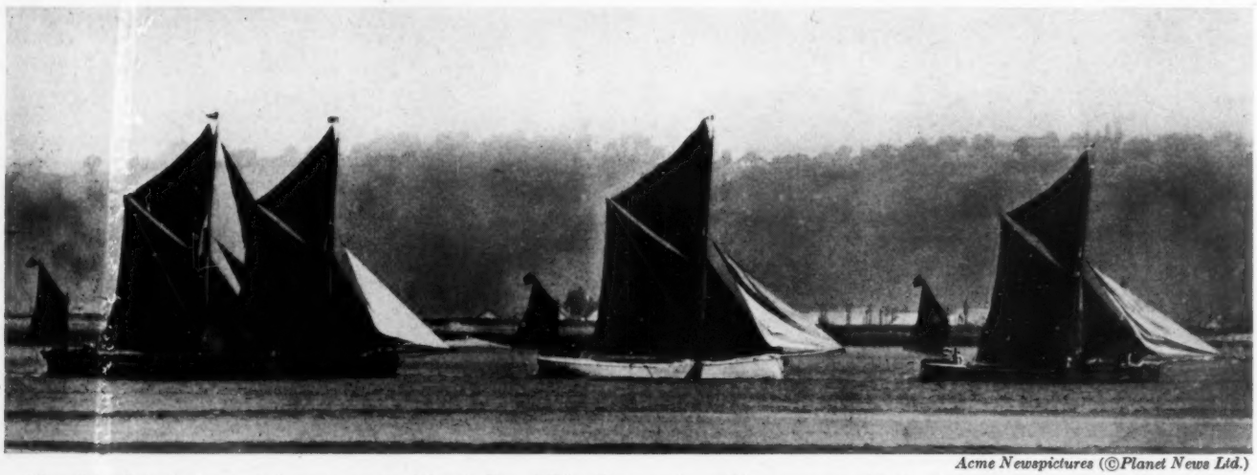
One of the smaller barges, the bowspritless *Veronica* of F. T. Everard and Sons' fleet, had the heels of them all going to windward. She was more than a mile in the lead when the committee shortened the course off Southend Pier — the ebb being exhausted — and started them back home on the flood. How much of *Veronica's* lead was due to speed of ship and how much to skill in tide lore on the part of her skipper is a nice point. It seemed as though there was nothing he did not know about the Thames.

If *Veronica's* skipper knew every fathom of Thames mud, my old waterman knew all the barges and bargees. He buzzed in and out among them with the launch through the heat of the race like a flea in a dog show; and all he got in the way of "langwich" was an occasional "I sye, Bill, wot's the blinkin' 'urry? Showin' the Prince o' Wyles the saights?" Which I take as a neat compliment to the royal Edward.

The wind fell light with the flood. The whole fleet closed in on *Veronica*. They sported spinnakers of various vintages and arrangement. Most popular was a big spinnaker which could also be used as a reaching staysail, filling up all the area from bowsprit end to abaft the main rigging, and hoisting to the mainmast cap. When this was swung out on the spinnaker boom the "staysail" was set above it, to the topmast head, as a topsail spinnaker. "Staysail" is, as already explained, the barge sailor's name for jibtopsail. For running, the big loose-footed mainsail was hauled forward by the lee vang of its heavy sprit, and boomed out with a pole thrust through the cringles in its clew where the sheet blocks were shackled.

Veronica has no light canvas to run with except her jibtopsail, and this she plied as well as she could on the end of her spinnaker boom. They all caught up with her, and as they hugged the Kentish shore for the best of the tide it looked as though she would be passed. Off the Chapman Light there was so little wind *Veronica* swung right around until she came almost head-to and her goose seemed cooked. But her skipper knew his job. With both leeboards up and the crew watching the lead-lines hanging plumb over her side, she squirmed over a flat until she caught a strong inshore eddy, and then, responding to a backed mizzen, sheeted to her hard-over

(Continued on page 98)



Acme Newspictures (©Planet News Ltd.)

"Sara" leading the bowsprit barges past St. Mary's Bay. White jibs were in striking contrast with the rich red of other sails, all carefully tanned with the traditional preservative mixtures

The author at the helm in the Upper Bay, New York. He was still single-handed, this snapshot being taken with his automatic movie camera

A Single-Handed Atlantic Passage

Part II — The Long Stretch to New York from Madeira, by Way of the Antilles

By MARIN MARIE

I SHOVED off from Madeira at noon of June 9th, and headed directly southwest. Land was out of sight before nightfall. The second day following, I rigged the double staysails, and from then until I sighted the Caribbean the boat steered herself. To my great delight, the automatic steering device worked perfectly, and was as effective in calm weather as in a 50-mile wind and rolling sea. Naturally, I was immensely pleased, for I could spend my time attending to such matters as navigating, keeping the boat shipshape, and cooking; I could lie down and doze, if not sleep. Of course, in mild weather the speed was rather low, so, after a day or two, I rigged a spinnaker, having decided to steer while I kept it set. But, as a matter of fact, even then I found steering unnecessary, for in spite of the pull of canvas to one side, the triangular sails continued to steer the boat quite straight, much to my astonishment. The front cover of this issue shows *Winibelle* running under this queer rig, "wings" spread, in a choppy sea. I painted the picture as carefully and as accurately as I could in every detail.

From now on, there was only one thing which troubled me — how to be sparing of my spinnaker, which was of light, machine-sewn cotton, and to prevent chafe of the running rigging by tallowing it and avoiding friction.

As I drew nearer the Antilles, the weather became more and more murky and stormy. It was at the beginning of the season of squalls. I was making for Fort de France, but when I found that I could make out nothing more than three or four miles away, I decided not to head directly for Martinique, as the east coast of that island is a very awkward one, protected as it is by coral reefs which stretch a long way out. I was obliged to make the east coast of Dominica, a coast that is not lighted, but which is quite safe and steep to. There was enough moonlight, and about four o'clock one morning, I sighted land — a black mass soaring up into the clouds. My impression was that it was like Jan Mayen Island in the Arctic Sea, as I first sighted it.

Here are a few typical remarks from my log book of the voyage from Madeira to Martinique:

11th June. 31° 01′ N.; 18° 55′ W. Getting warmer out at sea. Double staysails set.

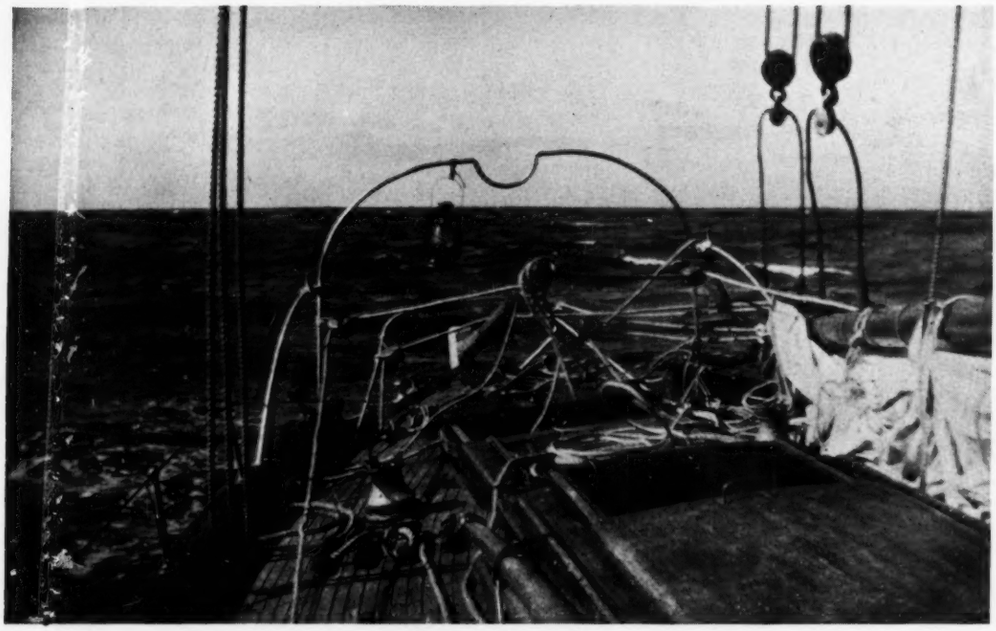
14th June. 27° 45′ N. by 22° 50′ W. Pleased to see I have done 119 miles and have not touched the helm. Unfortunately the spinnaker won't last much longer.

15th June. Given up all idea of letting the propeller of the boat turn freely; afraid of wearing out stuffing box. This wretched propeller is going to be more of a hindrance than a help.

17th June. Found five flying fish on the deck. They are from eight to ten inches long. Excellent white meat. Still stormy and cloudy. The crest of a big wave washed over the deck aft (hatches closed). Terrific noise but no harm.

This time I believe I am in the famous N.E. trade wind.

Later. No, not yet. Just about fagged out. Can't possibly get any sleep.



In Mid-Atlantic, with "Winibelle" steering herself as the double staysails, boomed out forward, pulled her along. Relieved from the helm, the skipper was free to cook, navigate, and tidy up his ship

18th June. Fitted up a celluloid hatch at the companionway: now I can see everything from my cabin and no rain can get in. Quite a high class way of traveling.

20th June. Took the helm and ran down 40 miles making straight south, determined to find these famous trade winds . . . which seem to keep a long way off (Latitude 22°).

21st June. For three days I have been followed by pilot fish but I don't see any sharks. Set fire to my bunk in lighting the lamps. Used extinguisher.

22nd June. It was stupid of me, the day before yesterday, to make straight for the south. Now I shall have to keep north of west so as not to go out of my course . . . I am going to rig the spinnaker on the other tack so as to get a tendency to starboard.

A pitch dark, cold, rainy night. I wonder what's tropical about the "tropics" . . . cyclones? . . .

28th June. Rain. Squalls. Hauled the spinnaker down, soaked and rattling. Thought I'd lost it that time. Took a cinematographic record of the working of the "wings." The burn on my forearm looks rather ugly. Bandaged it after cleaning it.

3rd July. 15° 32′ N. by 53° 45′ W. The sea has a very remarkable deep olive green tint. I must be in the lower branch of the North Equatorial Current.

No luck with my left arm. I have scalded my wrist. Fortunately the ambrine is just at hand.

4th July. A bit more animation this morning. A few birds; getting nearer to civilization. Have had no sleep for several nights. Aching in the back and sides. Weak in the legs.

Sargasso weed.

6th July. Rough cloudy weather. Visibility bad. The squalls will make it difficult for me when nearing the land. Impossible to see anything. Tired and nervous.

7th July. No reckoning. I reckon nothing at all now. I just grin and bear it.

Obs.: 15° 20′ N. 60° 30′ W.

A hellish rolling. Demoralizing. Not even the ghost of a ship to be seen for nearly a month. This is getting quite disgusting. Thought I'd sight one or two when nearing the Antilles.

Here the sea is stormy and washes over the decks from starboard to port. Almost all my dishes that were breakable are broken. I don't understand what this can mean. Am I getting into shallower waters? Or is there a storm far away? [It was the day of the hurricane in Trinidad.] No change in the color of the water, no birds. Very strange.

8th July. About 2:00 A.M. black clouds seem to gather right forward. The horizon never clears in that direction.

Sighted land at 4:30 A.M. in this blackness. Absolutely sinister. Reminds me of Jan Mayen.

The spinnaker has held out to the end, though a little the worse for wear.

I sighted Porto Santo dead ahead, in a sort of yellowish mist, which for some hours puzzled me very much. Terrible times those, when, after being alone for weeks, one finally begins to doubt everything — reckonings, calculations, and even one's own equilibrium. But now, I must admit that I gave way to my feelings. Ten days of incessant rolling had simply torn my nerves to shreds. For two nights I had taken the precaution of not sleeping for more than an hour at a time, and finally for no more than half an hour, with the result that I used to dream that I sighted land. When I really did catch sight of it, on putting my head up the hatchway after a short nap, there was a sort of black wall standing up before me. I remember that the first thing I did was to try different ways of convincing myself that I was not dreaming. I cried aloud, "No mistake about it this time, this is the other side!" I walked the deck in a veritable fit of excitement, running the risk of falling overboard. Then I tumbled down the cabin ladder, kissed my children's photos, bounded up on deck again to enjoy the spectacle, laughing and weeping at the same time. Now I can't think of this mad pantomime without smiling. In his book, Slocum often mentions that sudden relief, and the physical breakdown which made him, also, lose control. And remember that he was a man over fifty, who had been in command of big ships on all the seas in the world. I suppose it is the strain of going on for a month without seeing anything, not even a steamer's smoke, and not so much as looking at another human being, that produces this outburst, which I for my part am not in the least ashamed of, but which I am now at a loss to explain clearly.

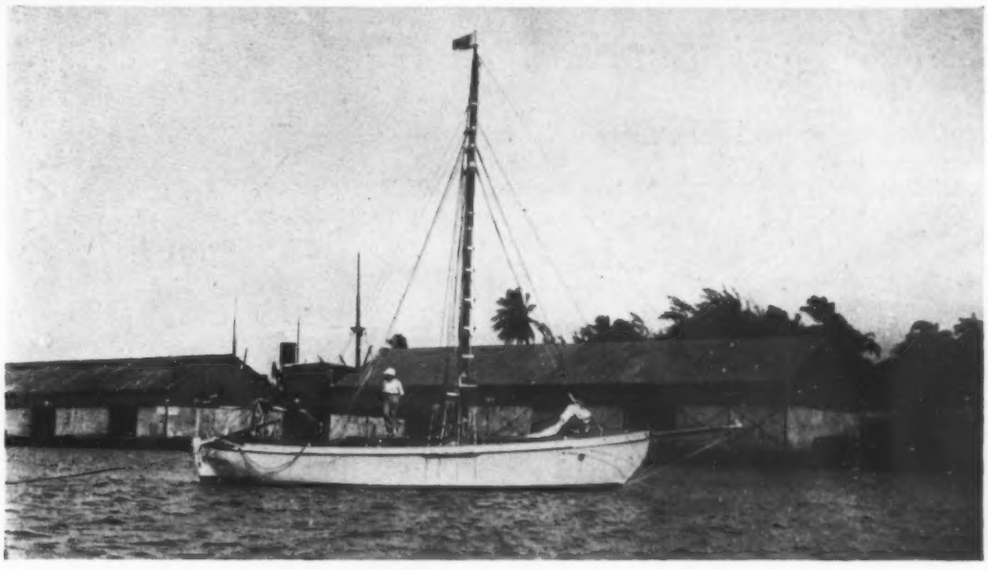
All this time, the boat was forging straight ahead as if to hit the shore; so I had to pull up and set about hauling down and unrigging the "wings" and hoisting the mainsail so as to make for Martinique. Six hours later, I found myself running under the lee of Mt. Pelee. There, profiting by the sheltered position, I spent several hours putting things in order and preparing to anchor. I started the Diesel so as to make the Bay of Fort de France, keeping close to land, and arrived there in the middle of the afternoon, with a quarantine flag flying in the shrouds.

I was taken alongside the wharf by the local pilot, a negro, and shortly afterwards was visited by the Military Surgeon, a Breton, who came on board to make medical inspection. He rudely ordered me off into quarantine and told me to drop anchor out in the roads. I had no French bill of health, yachts carrying none in our country. He didn't care a damn for anything else. French yachts are allowed to dispense with this formality in England and vice versa; he didn't care a damn. But here was my certificate of pratique from Madeira. He didn't care a damn about that either. Did I want to send a cable to my wife? I could not do so. And get some fresh food from the shore? That was forbidden. And if I sailed out for another island? Then he would send a cable on before me. And, what was more, he had the right to fumigate me, to vaccinate me, to imprison me!!! Yes, but I jolly well had the right to chuck him overboard if he stayed half a minute longer! I was furious.

I immediately began to prepare for sea once more: I would go to Antigua where Robert Somerset (of *Jolie Brise*) had advised me to stop. I had an introduction to his friends. . . . Night fell with suddenness. I stood before the mast, somewhat dazed and bitterly disappointed, watching the lights and listening to the confused noises of the land, when a boat that I had not seen approach hailed me by name. So it was that I met a friend of my brother, Pierre Hayot, an energetic young fellow who was influential in Martinique. On hearing what had happened he jumped with rage and, the following morning, at daybreak, he himself brought me the certificate of pratique. My brother, Lieut. Commander in the *Jeanne d'Arc*, the Navy training ship, had anchored in Fort de France only a few weeks before.

Thanks to my benefactor and his numerous friends, who, like him, were plantation owners, my stay in Martinique was very agreeable and I remained there for ten days. On arriving in New York, I was greatly shocked to hear the sad news that Pierre Hayot had been drowned while saving three children.

A disastrous hurricane passed over Trinidad two days before my arrival in the Antilles. On July 25th, the day when I decided to set out again, the meteorological service warned me not to get under way; another hurricane was coming up from the southeast. I doubled moorings, but nothing happened. By the 27th, there was a pretty hard wind blowing, and I cast off at 11:00 A.M. under short sail. I had decided to try to pass along the



The double staysails as first set, before they were trimmed to the best advantage

"Winibelle" at anchor in Fort de France after her 28-day passage from Madeira

weather side of Dominica and round the Désirade by the East, and this for two reasons: once I had rounded Désirade, I should be able to let the boat steer herself, while I slept, whereas, if I passed by Sombrero or between Guadeloupe and Antigua, I should have had to keep watch for at least three nights. Besides, I should be going directly away from the usual track of tropical cyclones. The officers of the *S.S. Alabama* were not of the same opinion. They said that the sea was too rough for me to go to windward against it, that I could not possibly weather the land, and that I had better sail in the shelter of the islands. And, in fact, when I was halfway up the Dominica Channel, at nightfall, I hesitated; there was a heavy sea running and the current set to leeward. No lighthouses on this side and no moon.

Still, I decided to trust the boat and try anyway; she behaved very well, and sailed along wonderfully, forging ahead like a locomotive; this was just the sort of sea that suited her deep and heavy hull, short-masted and rigged to stand up to anything. She liked this better than running dead before the wind, for sure! She traveled so well that by daybreak, the following day, I was abreast of Marie Galante, by nine o'clock I was along by Petite Terre and at noon I had rounded Désirade, not more than a gunshot away. A hundred miles in twenty hours . . . and there I was sailing along at ease, with a little more sheet and the tiller lashed.

Just at this time, a storm was raging over the south of Martinique, the boats in the harbor dragged their moorings, and roofs were flying off the houses in Santa Lucia. If I had gone to leeward of the Lesser Antilles I should have had a rough time.

Here is an extract from the log book:

29th July. By a series of coincidences, I have not seen any light on the Antilles all the time I have been sailing, neither coming nor going. Burned four fingers of my right hand rather badly with boiling oil. Applied some ambrine; seems to work.

30th July. No flying fish today. Excellent weather this morning. I tried to do a big stroke and I hoisted the light jib (one I had bought second-hand and rather the worse for wear), just before a squall which I thought favorable. It was blown away in a few seconds; nothing left but the bolt ropes. And I had to haul down the mainsail in a deluge. What a beastly place!

Of course, the skin of my burned fingers was torn away by the salt water as I was maneuvering.

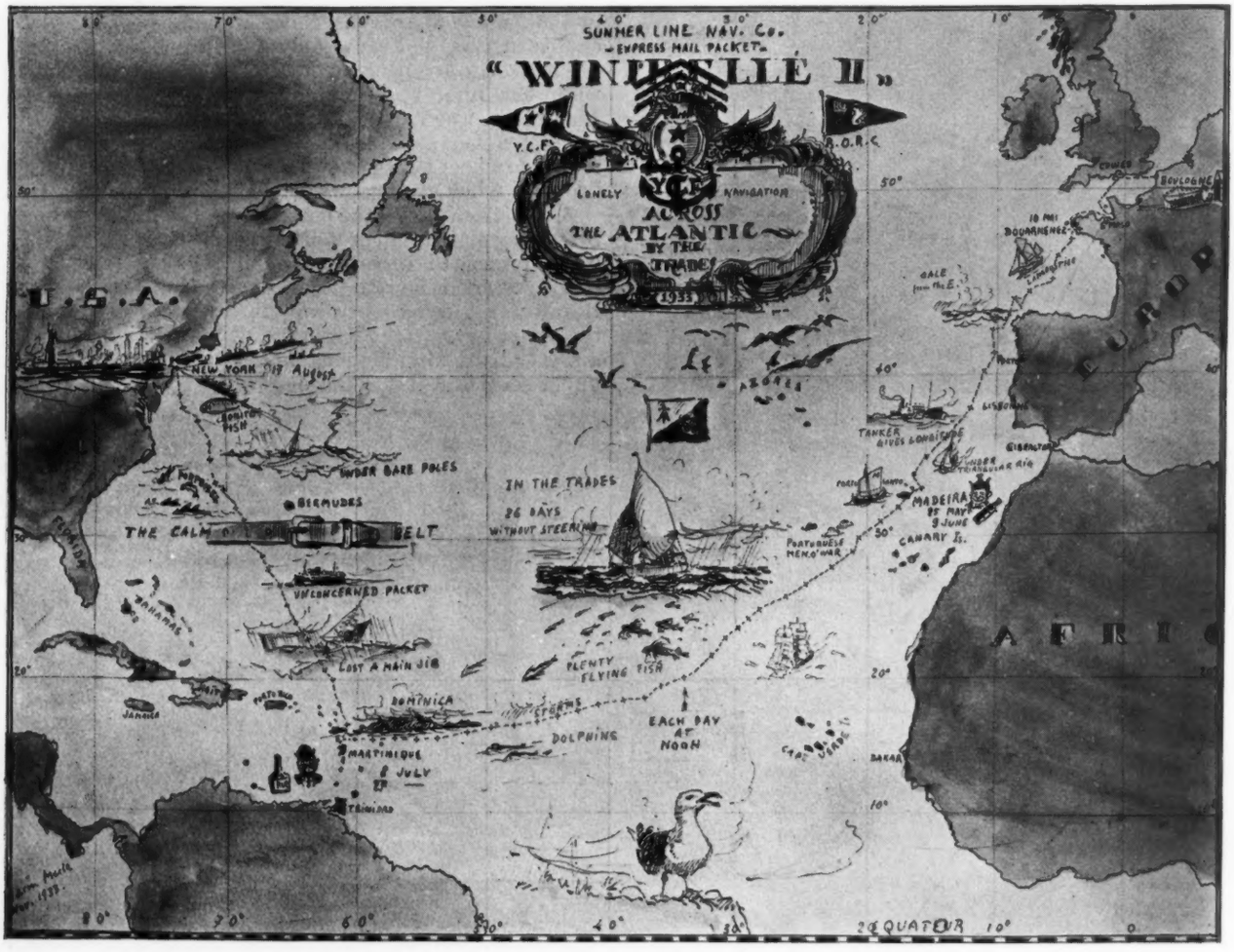
I forgot to mention that I have done no steering since I left Désirade. That's the end of it. I don't steer any more. It's too boring and, with a little thinking, you can always manage without.

1st August. My first observation puts me not a hair's breadth out of my route, and forty miles ahead of my calculations.

3rd August. 150 miles more and I shall be out of the N.E. trades. Fine weather but not much wind.

6th August. What a beastly climate between here and Martinique! One never has the same weather for two

(*Continued on page 94*)



The Gloucester Fishing Schooner

Part III—The Development from 1900 to the Present

By H. I. CHAPELLE

THE building of clipper bow fishing schooners continued well into the twentieth century. As an example of one of the last of this class, we have in Figure 1 the lines of the handsome *Gertrude*, built at Essex in 1902 by A. D. Story for F. J. O'Hara & Co., of Boston. The *Gertrude* measured 84.63 gross tons and 56.85 net; her registered dimensions being: length, 88′; beam 23.4′ and depth 9.2′. Built from a model by Mel McClain, her striking features were her yacht-like form and comparatively light displacement for a commercial schooner. Her easy lines, graceful ends and cutaway underbody make an attractive vessel; her long and well-shaped run, a fast one. Like many of the schooners built from half models, her sheer was rather straight. The small displacement was undoubtedly the result of the desire for speed, but the general reduction in cargo capacity seen in most of the fishing schooners of her time was brought about by a change in the fishing industry.

After 1890 there was little or no salt banking by either Gloucester or Boston fishermen, due, perhaps, to a decreasing demand for this commodity as a result of the spread of cold storage facilities. At any rate, the need for bulky schooners of the Grand Banker class ceased and few were built after this date. Salt fish were obtained, when in demand, by sending schooners to Nova Scotia, and the large schooners were occasionally so employed. In spite of the discontinuance of banking, large schooners could be employed on the Georges as well as on the Maritime Provinces voyage, and could be of less capacity than formerly. Hence, schooners were built to fulfill the requirements of all types of fishery. The *Gertrude* represents the class of schooners popular under these conditions. She was the culmination in design of the *Fredonia* type, introduced by Edward Burgess, as told in the December issue of YACHTING. Undoubtedly, the search for speed had caused the reduction of displacement to be carried to extremes; there was a reaction toward vessels of greater capacity, as will be shown.

Figure 2 is the sail and rigging plan of the *Gertrude*, and shows, in a general way, the proportions of spars and rig popular in her day. Though the sail area is large, the rig is not excessive in height. The bowsprit, though long as judged by modern standards, was much shorter and lighter than formerly. As a result, the complicated head rigging used on earlier schooners could be omitted, and bowsprit spreaders were no longer seen. One characteristic, nearly always to be seen in fishing schooners, may be seen here; the masts, though stepped with some rake aft, are stayed well forward, as are also the topmasts. This was done even on new schooners. The bowsprits were usually hogged down as well.

One of the very last of the clipper bow fishermen built at Essex was the racer *Arthur James*, built from a half model used, in 1903, to build the *Avalon*. The *Arthur James* was built by Tarr and James in 1905 and was about three feet longer than *Avalon*. McClain was responsible for this design also. Another well-known racer of this type, which is still afloat, is the *Philip P. Manta*, built in 1902. She is about the size of the *Gertrude* and is a beautiful schooner. In appearance, these boats differed little from the lines shown in Figure 1.

During the last years of the nineteenth century, fishing schooners came under the influence of that remarkable designer, Thomas F. McManus. The son of a Boston sailmaker, McManus was a well-known Boston fish buyer and also a yachtsman. During his youth he was friendly with both Dennis J. Lawlor and Edward Burgess; this, perhaps, caused him to take up the designing of fishermen as a hobby. The first built to his design were the sister ships *James S. Steele* and *Richard C. Steele*, launched in 1892. These schooners were cut away forward much more than was then common; in fact, the profile was much like that of the famous Herreshoff sloop *Gloriana*, though McManus knew nothing of this yacht. These schooners were quite successful and were followed by a few similar vessels, but it was not until nearly 1900, when the Boston and South Shore fishing fleet was built up, that McManus's influence became apparent. The first characteristic that he introduced in his schooners at that time was the modern curved stem, now so common in the fleet. The first to have this stem were some small vessels named after Indian chiefs; hence, this type of stem soon became known at Essex and Gloucester as the "Indian Head," and the schooners so built, as "Indian Headers." About this time, McManus began to make a business of schooner design, to the exclusion of his fish business.

The earlier "Indian Headers" had a keel line that curved from stem to sternpost. However, this made a vessel hard to haul on the marine railways, because of the difficulty in setting the keel blocks. About 1902, Crowninshield, well-known Boston yacht designer, turned out some fishing schooners with short, straight keels, two examples of which were the *Stranger* and the *Harmony*, of the Boston fleet. This feature proved so successful that it was soon widely used; in fact, this form is now usually referred to as the "fisherman's profile." The later "Indian Headers" had this underbody profile; the famous *Elsie*, which first represented Gloucester in the Fisherman's Race, and many others, were so designed.

The "Indian Headers" became very popular, first with the Boston fishermen, then at Gloucester. As a result, a great many fine schooners of this class were built during the early years of the twentieth century, including such vessels as the *Flora S. Nickerson*, and *Emily Cooney*, built in 1902, and the *Ingomar*, built in 1904. As an example of the "Indian Headers," the *Ingomar*, shown in Figure 3, represents the early schooners of this class. She was built by Tarr and James at Essex during the winter of 1903–4, and was of 143.36 gross, and 103.58 net tons. Her registered dimensions were: length, 104.8′; beam 25.7′ and depth

---

Publication of this third and concluding instalment of a series of articles dealing with the development of the Gloucester fishing schooner has been delayed because of the illness of the author. The article preceding appeared in the December, 1933, issue of YACHTING. [Ed.]

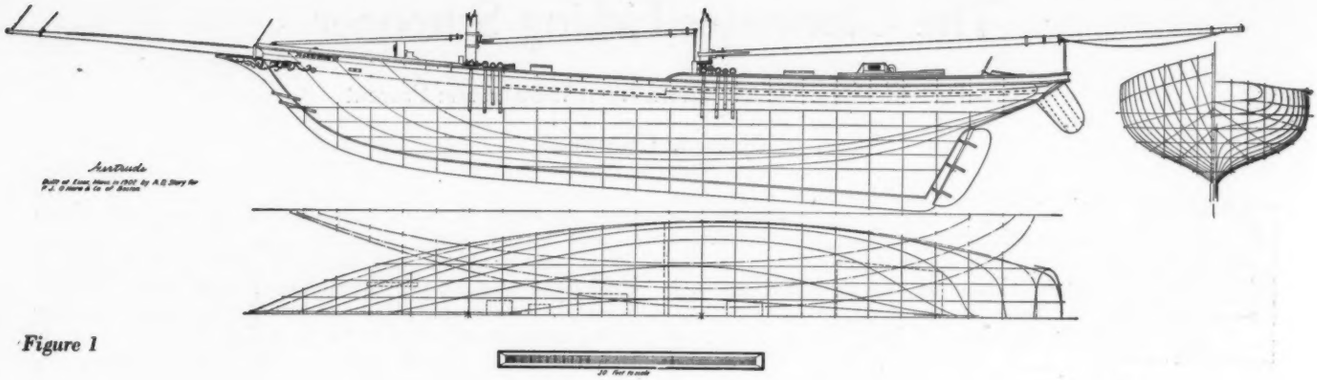


Figure 1

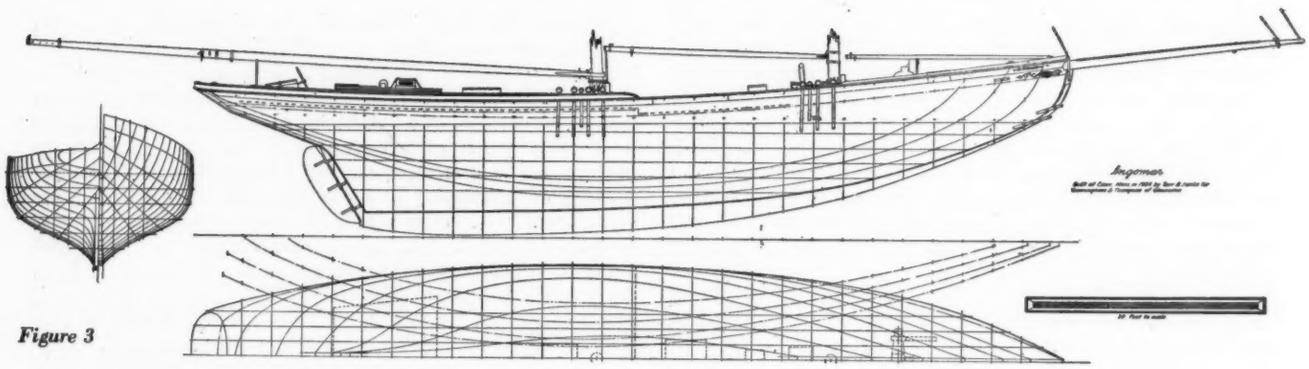


Figure 3

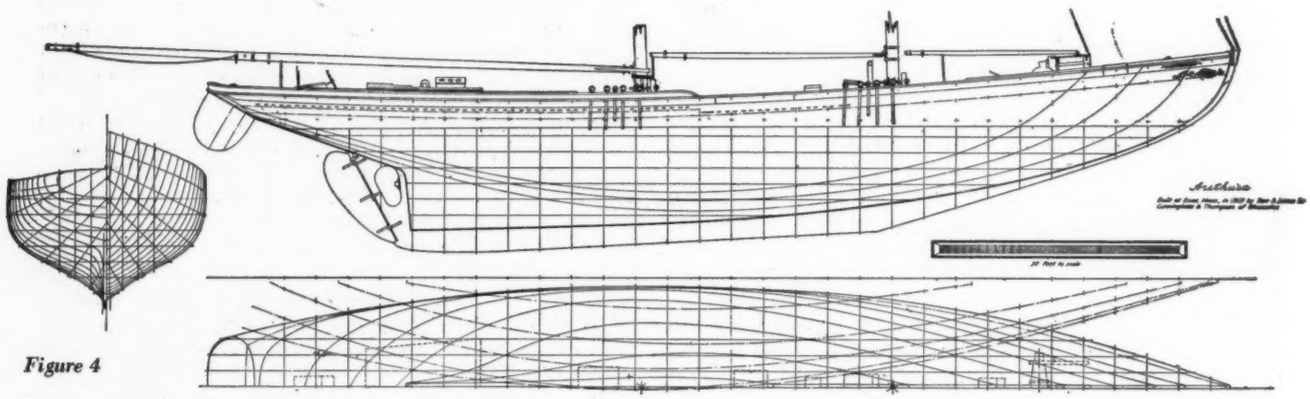


Figure 4

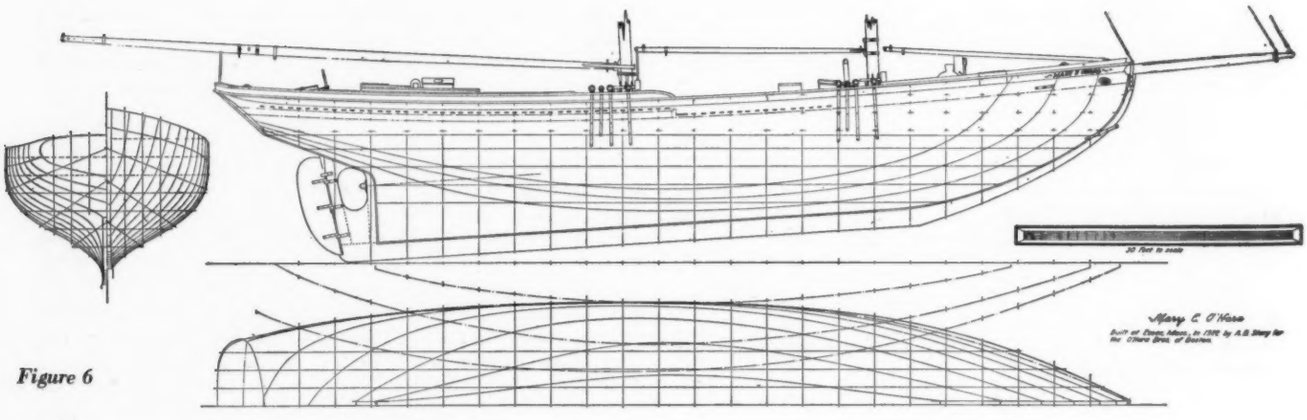


Figure 6

11.4′. A study of her lines will show many characteristics of the McManus design, particularly the shape of the midsection, an important feature. Its shape gave an easy roller, and a vessel that was, as a result, easy on her gear, as well as a good carrier. *Elsie* has practically the same midsection. Speed was obtained by well-shaped ends, and the long and rather flat buttocks which are noticeable features of all McManus' fast schooners. Another feature is the rather marked trim by the head to be seen in most of them. It is claimed by the fishermen that this improves the sailing of their vessels, but this is open to doubt, as they invariably trim them by the head even before they go off on their trials. Hence, they do not know whether their assumption applies to an individual vessel or not; this is proved by the fact that they have ruined the sailing of some of the racing fishermen by such trim. Certainly, there is nothing in the lines of the majority of fishing schooners built at Essex that warrants the belief that such trim is best. The *Ingomar* is still afloat and is trimmed about as shown.

The rig of the "Indian Headers" varied little or not at all from that of the *Gertrude*, unless in a slight increase in proportional height. The spar dimensions of the *Ingomar*, as given the sparmaker, were: mainmast, deck to cap, 77′; total length, 88′ 6″, dia. 18″; foremast, deck to cap, 68′ 10″; total length, 78′ 6″, dia. 18″; mainmast head, 11′; foremast head, 10′; bowsprit, 29′ 6″ outboard, 15½″ dia.; main boom, 75′ long, 13″ dia.; main gaff, 44′ 3″ long, 10½″ dia.; fore gaff, 29′ 6″ long, 9″ dia.; fore boom, 29′ 6″ long, 8½″ dia.; fore topmast, 42′ long, 10¼″ dia.; maintopmast, 47′ long, 10¾″ dia.; and jumbo boom (fore staysail boom), 27′ long, 6″ dia.

Schooners of the *Ingomar* type were built until recently, the *L. A. Dunton*, one of this class, being built as late as 1921. Except for variation in size and in the use of the straight keel already mentioned, most of the McManus schooners were similar to the *Ingomar*, though a few were designed with a somewhat longer bow overhang.

McManus was responsible for still another innovation. He had noticed, in strolling about the wharves, that the footropes on the bowsprits of many fishing schooners were in bad shape. Many men had been lost as a result of carelessness in this matter, but it was hard to get fishermen to take proper care of such gear. Then, too, men were often washed off the bowsprit in heavy weather even when the gear was good. Altogether, it seemed that the bowsprit was not wholly desirable in a fishing schooner, since it was also a source of trouble in maneuvering about the wharves. These observations led McManus to design a schooner, without this spar, which he thought would be as handy and safe as the small sloops then becoming popular among Massachusetts Bay yachtsmen. However, he found it very difficult to interest fishermen in schooners of this type. In spite of every argument, and even the exhibition of the half model of the proposed schooner in Boston, it was some time before McManus found anyone willing to risk his money in such a vessel. At last, in the fall of 1901, Captain Wm. Thomas, of Portland, and Cassius Hunt, were prevailed upon to try the new design. Oxner and Story, of Essex, were commissioned to build a schooner of this design that winter, to be named the *Helen B. Thomas*. So it was that the first "Knockabout" fishing schooner was launched in the spring of 1902. The new vessel was peculiar in design and appearance, having a short, straight keel with much drag, and a small midsection, also seeming to be a smaller schooner drawn out forward to where the end of the bowsprit would be in an ordinary rig. This gave her a lot of freeboard forward as well as quite a bit of sheer. When brought to sailing trim, however, the *Thomas* was a fine-looking ship and, after some fishing and racing, the fishermen were willing to admit that she was practical. In one of her races, she met the slippery *Philip P. Manta* with success. The *Helen B. Thomas* measured 76.99 gross and 48.19 net tons, her registered dimensions being: length, 94.2′; beam, 21.6′ and depth, 9.2′. Her success naturally led to others of the same rig being built.

The next "Knockabout" to be built was that exceptional sailer, the *Shepherd King* which, strangely enough, was not a McManus design. The *Shepherd King* was constructed by the builders of the *Helen B. Thomas* at Essex in 1904, from a half model made by one of the firm, Oxner, as an improvement on the first "Knockabout." Captain J. O. Brigham, one of her owners, had many of his ideas incorporated in this schooner, among which were a more burdensome midsection, very straight sheer, longer keel and short over-

(*Continued on page 104*)

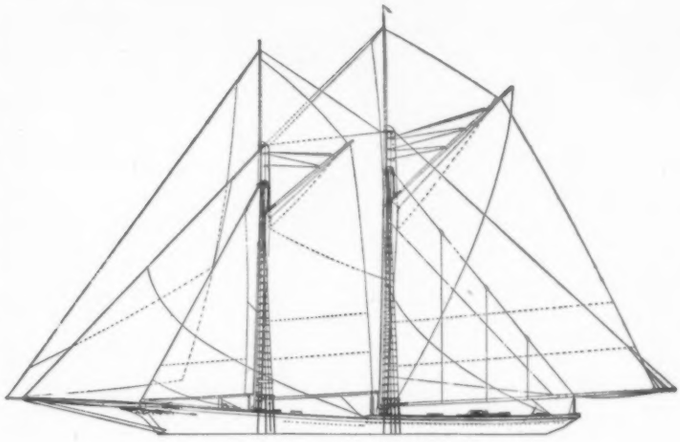


Figure 2. Sail plan of "Gertrude"

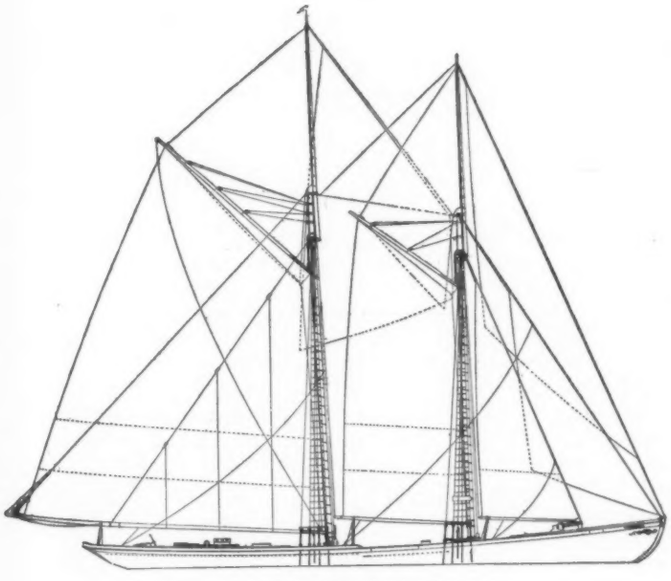
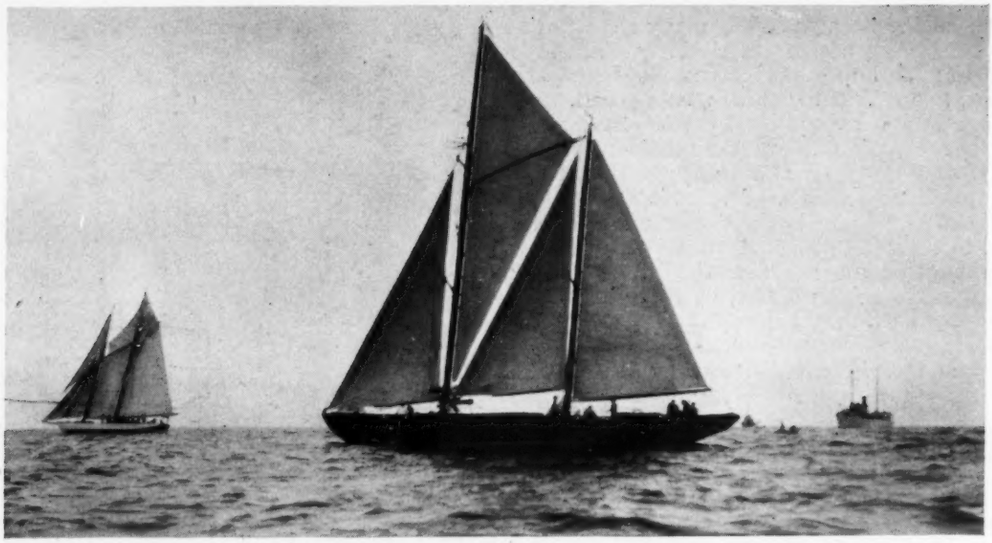


Figure 5. Sail plan of "Arethusa"



"Vamarie," in a hard, wet thrash to windward, won the Miami-Nassau race. She is owned by Vadim Makaroff

A Wet Race

Only Three Yachts Finish in Miami—Nassau Race

By ALFRED F. LOOMIS

THERE were times during the running of the first annual Miami-Nassau race for cruising yachts when I thought it would be the calamity that all devoted proponents of ocean racing dread. Twelve yachts started. At least half of them shouldn't have been allowed to start. It is, indeed, open to question whether the event should have been run at all on the scheduled day. But I am not prepared to argue that point. The weather bureau at Miami, whose patriotic anemometer seems to stick at fifteen miles an hour, gave no indication that we were in for a three-day easterly buster. It is enough to say that we who raced knew that we were going to get a beating on the 187-mile course to Nassau, and that as some of us looked around the fleet we thanked God that we hadn't shipped in this, that, or the other boat. One had previously broken her back. One had an open cockpit. Others couldn't go to windward. Yes, I guess at least six of them shouldn't have been permitted to race under any conditions of the weather.

Nine quit.

Vamarie, owned and sailed by Vadim Makaroff, won. *Musketeer*, chartered and sailed by Philip J. Roosevelt, finished second and won in the small class. *Water Witch*, owned and sailed by T. C. Wood, Jr., was the third and last to finish. It was a wet race.

This isn't going to be a diatribe against the gentle art of quitting in southern waters. I'd like, instead, to take off my hat to the skippers of the boats that finished. Makaroff, who possesses among many other useful articles of equipment an anemometer mounted on his main truck, reports that at times the gauge indicated velocities of nearly fifty miles an hour. Deduct anything that seems reasonable for the *Vamarie's* speed against the wind, and you still have air currents moving at better than forty miles. *Vamarie* lowered her wishbone mainsail shortly after she entered the Stream, but carried on under jib, mizzen staysail, and mizzen to win handily in 32 hours, 38 minutes, and 39 seconds. Hull and rig were equal to their hard task.

Philip Roosevelt, who commanded the *Musketeer*, lays claim to being no better than a puddle-jumper. He did a veteran's job of sailing and piloting among the treacherous shoals of the Bahama Banks; and despite two blown-out sails finished in second place 17 hours and 20 minutes behind the bigger boat. It detracts nothing from *Vamarie's* victory to say that she measures 54 feet water line and 72 feet over all to *Musketeer's* dimensions of 33 feet water line and 45 feet over all. Both are ketches. Both were ably sailed.

I think that Wood and his crew of the schooner *Water Witch* (39 feet water line, 49½ feet over all) deserve the greatest credit, even though they finished a poor third, 18 hours and 17 minutes after *Musketeer*. (These are all elapsed times. The allowances to small boats racing against large ones in a gale of wind aren't worth figuring.) On the second day of the race, *Water Witch* blew out her jib and ripped her mainsail along several seams. At that time she had rounded Great Isaac Cay and had the better part of a 65-mile beat dead to windward confronting her before she could ease sheets for the 55-mile leg to the finish. Though all on board were sick (like all of us in *Musketeer* and almost all in *Vamarie*) they sewed sail all day, jogging off and on under foresail and jumbo in a jumping sea, and never for an instant thought of giving up the fight. O. K., *Water Witch!*

The rest of my story will consist principally of our experiences in *Musketeer*. Owned by Demarest Lloyd and described in the September, 1933, issue of YACHTING,

she was built last June and had passed quite a bit of blue water beneath her keel before she was chartered to Philip Roosevelt. She is an able boat. In hull, rig, and cruising accommodations she is ideal for ordinary cruising. Because of many moist experiences I have come to expect extraordinary conditions in ocean racing, and from my point of view *Musketeer* has two defects. First, her running rigging is too light for the comfort of a cautious man. Second, the after part of her cockpit is too wide. It is of the supposedly self-bailing type, but the after two of its four scuppers must be plugged when the boat is on the wind, and with plugged scuppers and low coaming a wide cockpit is self-scooping. We spent many hours bailing with a saucepan so that the seas which came aboard from windward and leeward would not seep past locker doors and into the bilge.

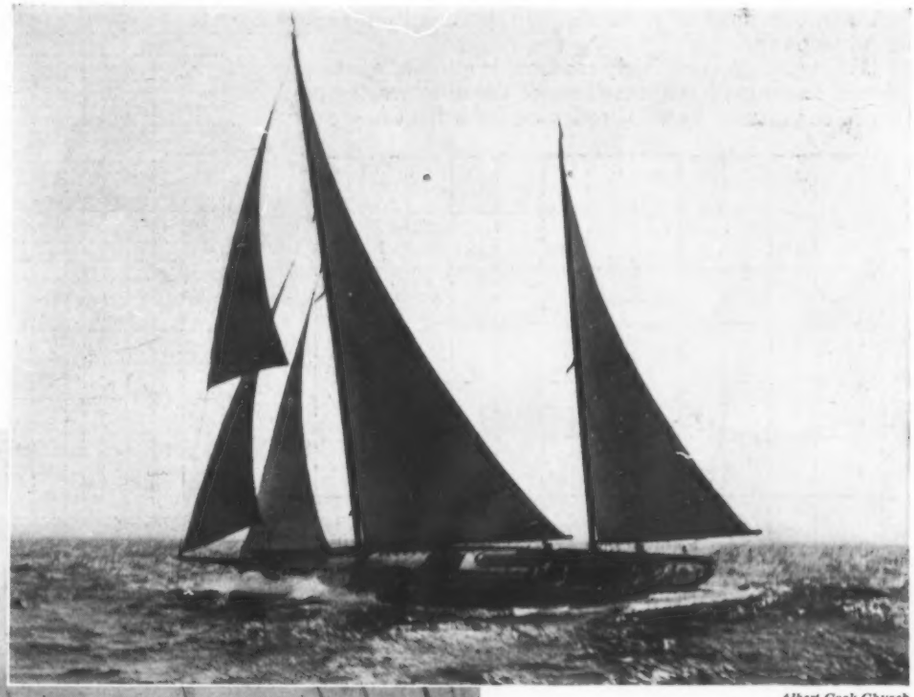
On board, besides the skipper, were Warren Whitehead, who had sailed her from New Bedford, part of the way single-handed; Bromley Stone, of New York, who has wet his socks in Nova Scotian and New England waters, and myself. It had been the skipper's original intention to have a crew consisting only of navigators and it had been both his threat and his promise that he would let none of them work at their chosen pastime. He kept me to threat and promise and, solely on the basis of non-participation in the anxieties of piloting, it was the most enjoyable race I have ever sailed. To hear the cry at night, "White water ahead," and to roll over and go to sleep while the skipper-and-navigator assures the deck that all is well — this was a luxury that I had never before enjoyed.

For a few minutes after we had crossed the starting line just north of Miami entrance, the easterly wind was light. *Vamarie* and one other soon overtook us and we in turn were trailed by the rest of the fleet. Those who had prayed for wind — and before the race there had been many of them — had not long to wait. On *Musketeer*, as the skipper cogently remarked, there had been no whistling. Entering the Stream, which here sweeps two miles or so from the Florida coast, we got into our oilers as the easterly piped up to twenty miles, its visible sign a low-lying bank of cloud. Even allowing for the northward set of the current, we saw that we should be unable to lay Great Isaac Cay on the first board.

For a matter of three hours we carried our four lowers, bailing the cockpit almost continuously, the starboard deck well under. We subsequently realized that we'd have done better if we had shortened sail at once, as the boats around us did. But the good Lord took the first step for us in that direction when we luffed to take up slack in the main halliard. He blew out the jib. Whitehead muzzled it on its stay and I tried my hand at *mal de mer*, setting a popular example. Bromley took to bailing. The skipper kept the wheel, finding that without the jib *Musketeer* had a weather helm. But it was not bad, and as the rail now emerged occasionally from the hot, exceedingly bothered surface of the Stream, we stood pat.

Yet before dark the mizzen was taken in, the wind increasing to twenty-five or thirty miles, so that we were then reduced to cutter rig, sailing under full mainsail and jumbo. *Musketeer*, demonstrating her adaptability, carried an easy helm. So rigged, we made much

(*Continued on page 100*)



Commanded by Philip Roosevelt, to whom she was under charter, "Musketeer" finished second and won in the class for small yachts. She is owned by Demarest Lloyd

Albert Cook Church

Three of "Musketeer's" crew of four. Philip Roosevelt (at the wheel), Bromley Stone, and Warren Whitehead. The latter had sailed "Musketeer" from New Bedford

How Fast?

By

GEORGE F. CROUCH

NINE TIMES out of ten, the first question asked about a boat is: "How fast will she go?" The average boatman is not interested primarily in knowing how well a boat is built, nor how able she is in rough water, but he does want certain accommodations and is very decided in his ideas with regard to speed. If she does not have the speed he demands, he seldom has any use for her. Occasionally he may find a boat which suits him in every respect except that of speed and he may plan to remove the original motors and replace them with much more powerful ones, hoping to get the speed he needs.

This article is not intended to be a scientific discussion of boat forms nor a treatise on hull resistance, for volumes have been written covering those problems. Unfortunately, most of that voluminous literature has little bearing on the horse power needed by the motor boat to make a certain speed because the data given has been based on ship forms. It is hoped that this article — making no pretense of being scientific — will furnish a more or less simple guide so that an owner may make an intelligent guess as to what may be expected when a certain size and type of hull is powered with a motor of given horse power. Perhaps it will save more than one owner bitter disappointment resulting from a much too optimistic estimate of an increase in speed with increase in horse power.

But even to make a fairly reasonable guess at speed or power, one must have some idea of the different factors which constitute the total resistance of a boat and how these change with changes in speed and changes in hull form.

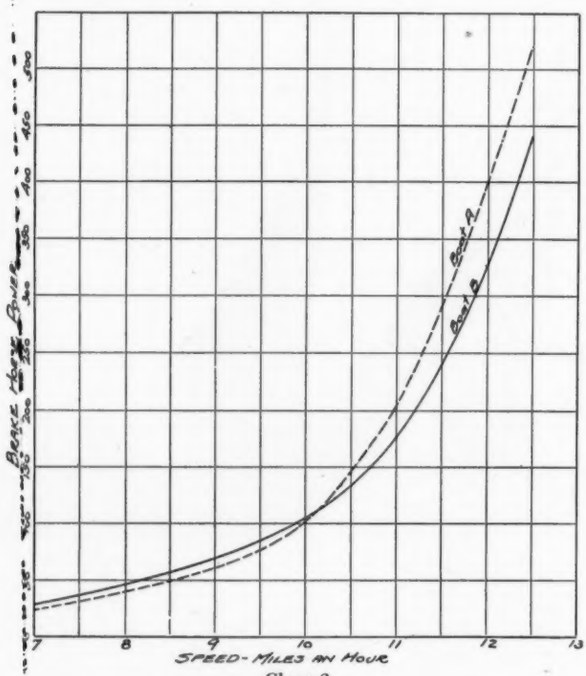


Chart 2

Boat A. Length, 78 feet; beam, 18 feet; displacement, 74.7 tons

Boat B. Length, 86 feet; beam, 19 feet; displacement, 90.5 tons

A first consideration about boat speed is that speed alone does not count for much. The *speed must always be considered in relation to the size,* or rather the length of the boat. Unless that is done, no intelligent guess as to the action of the boat is possible.

If the speed of the boat is divided by the square root of her length on the water line, that quotient is the measure of the speed for her size and is called the speed-length ratio. When dealing with ships, and seagoing vessels, speeds are always taken in knots. In dealing with motor boats — and in this article — the speed is taken in statute miles. To eliminate fussing with a slide rule or bothering with tables of square root, Chart 1 has been prepared to show at a glance what the speed-length ratio is for any length and speed within the ranges usually found in boat work. All the arithmetic involved in working out this ratio from the formula stated at the beginning of the paragraph can be forgotten when using the chart. To find the speed-length ratio of any boat running at any speed, find the point which corresponds to the water line length of the boat on the scale at the bottom of the chart, then go vertically up the chart to the line which represents the speed under consideration, next read the speed-length ratio by carrying this point over to the speed-length ratio scale at the left or right of

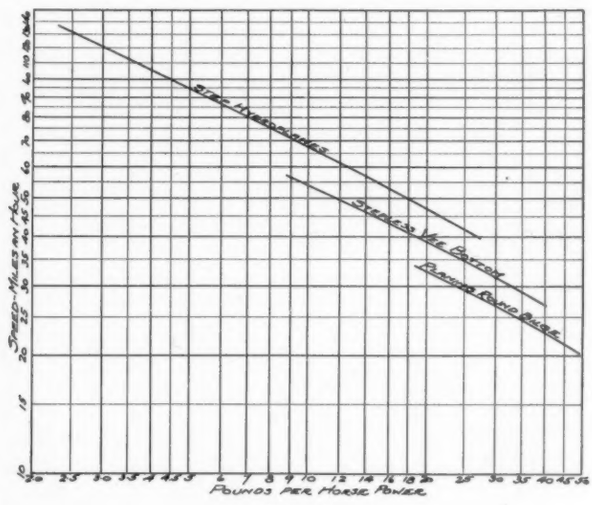


Chart 3

Speed chart for planing hull types

the chart. To illustrate: A boat 25 feet long on the water line, making 20 miles an hour has a speed-length ratio of four. It will be noted that intermediate lengths and speeds can be estimated easily between those shown on the chart. Along the right hand edge of the chart is shown a most valuable classification. This shows how the type of hull should change when the speed length ratio changes.

Up to 1.5, the form used for ships is the desirable one. From 1.5 to 2.5 or perhaps even a little higher, the destroyer type is suitable. Within this range of speed the

boat will not plane at all; she may change trim, lifting at the bow and drawing down at the stern, but the general level will not be above that at which she floats when at rest. No large ships and no destroyers actually plane. Only in the motor boat class do we find boats with speed for their size sufficient to make them plane.

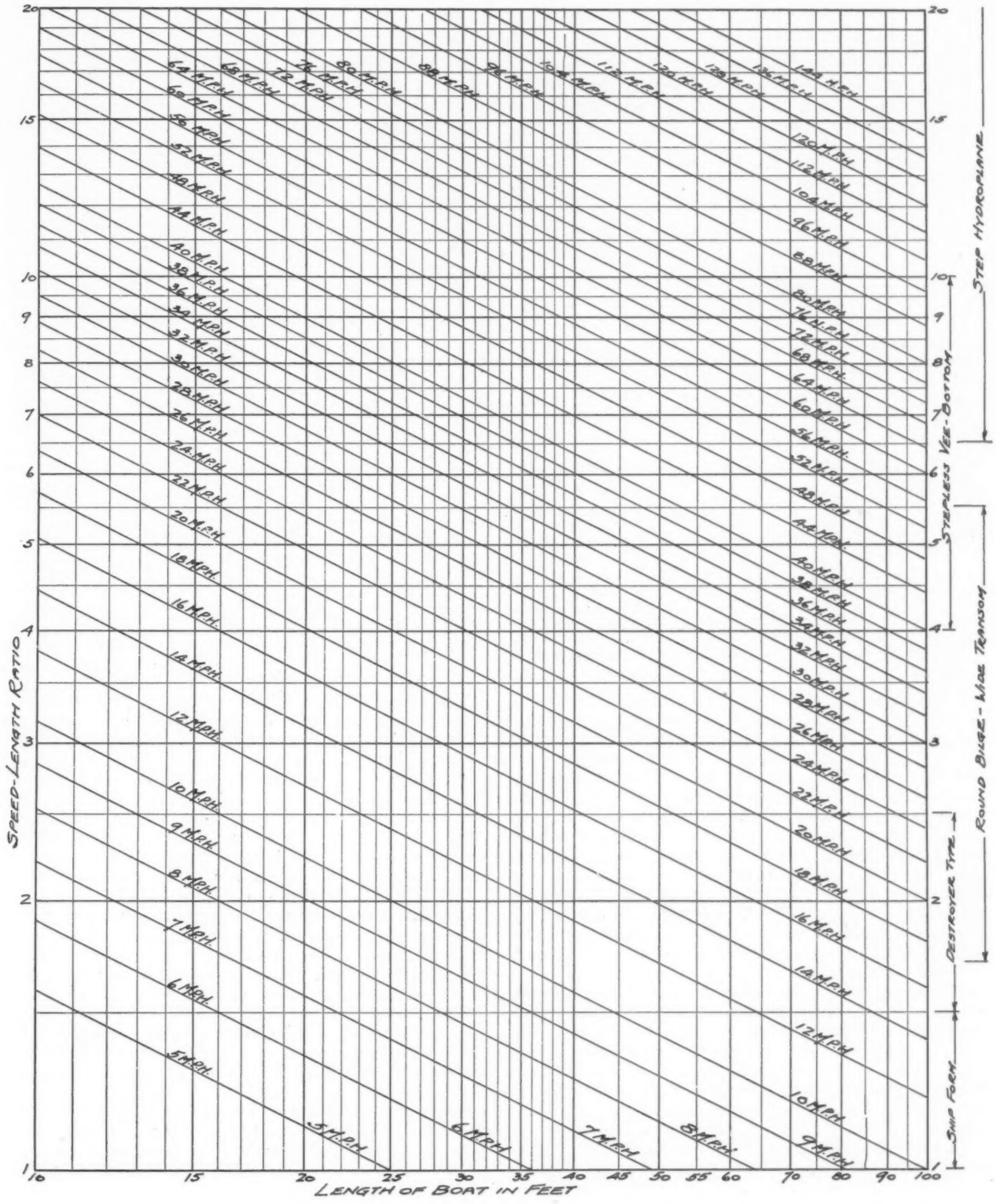


Chart 1

Showing speed-length ratios and proper types of hulls for different speeds. Gar Wood's latest "Miss America" is the only boat which comes above the chart. She is not only the fastest boat in the world, but also the fastest considered according to size

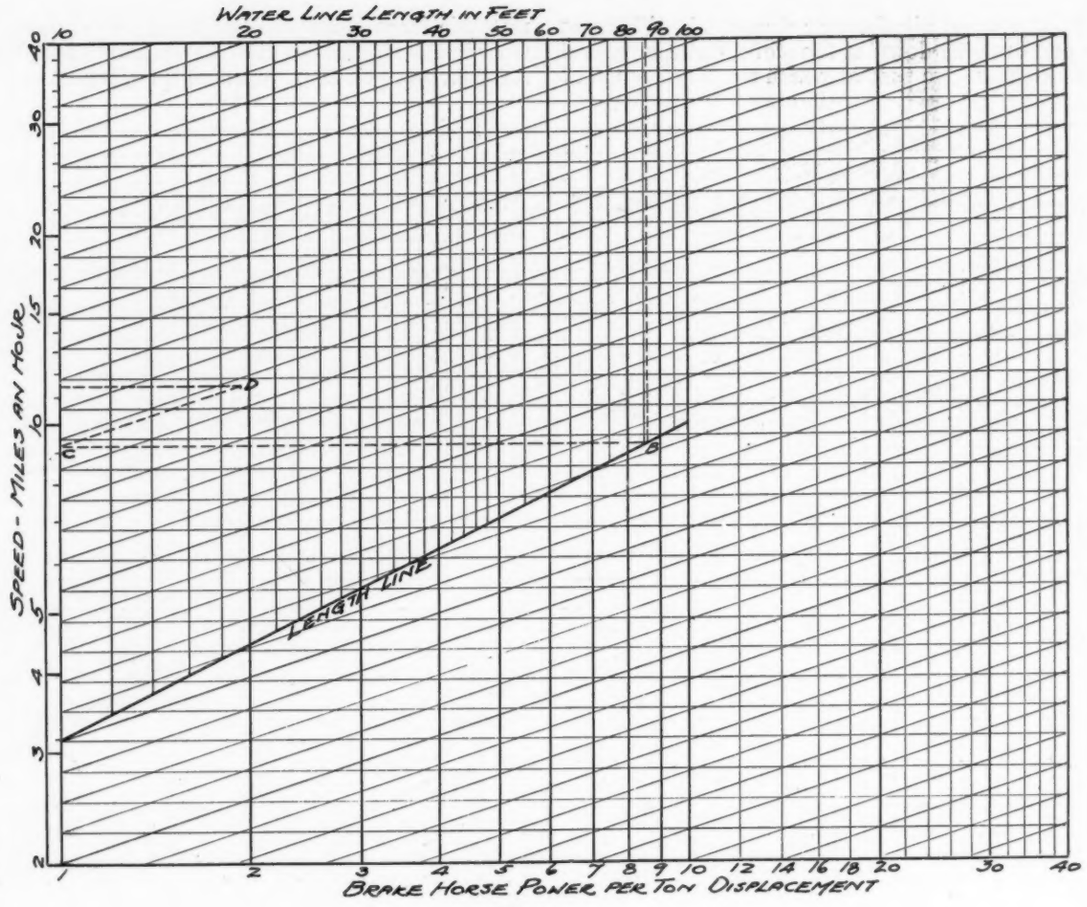


Chart 4

Speed chart for displacement types

For speed-length ratios of 2, or perhaps a little less, up to about 5.5, the conventional round bilge motor boat hull with a wide and comparatively flat transom is suitable. The lower the speed-length ratio, the narrower and sharper the transom may be and the less deeply it should be immersed when the boat is at rest. If the speed length ratio approaches 4 and higher, the transom may be wide, quite flat, and rather deeply immersed at rest.

Stepless V-bottom hulls such as are used for runabouts or fast express cruisers are suitable for speed-length ratios of 4 to 10. Below 4, the round bilge form is the better. Above 10 there is no question but that the step hydroplane is better. In fact, the step hydroplane is the faster form above a speed-length ratio of 7 but it has many faults.

According to this classification the different types overlap each other considerably. These overlapping portions are where the designer, and often the owner, gets into difficulty. The speed range giving speed-length ratios of 1.5 to 2.5 are particularly troublesome. It is difficult to know the proper thing to do and it is very unusual to find a boat in this range that drives with little fuss.

The overlap in type shown between the stepless V-bottom and the round bilge type shown at a speed-length ratio of 4 to 5.5 is not as troublesome. Both forms work quite well, the "V" having somewhat the better of it. The same is true of the overlap in type of the stepless V-bottom and the step hydroplane. Both types work fairly well in the range of the overlap, with the step hydroplane naturally the faster but not necessarily the more comfortable or seaworthy.

An owner should never try to drive his boat out of the range for her type. How quickly the resistance builds up as speed increases is shown clearly by the two curves given in Chart 2.

Boat "A" is 78 feet long, 18 feet wide, and weighs complete 74.7 tons. Short tons of 2,000 pounds will be taken whenever a ton is mentioned in this article. Of course, the true seaman always uses the long ton of 2,240 pounds, but the short ton is used because most stock boat manufacturers in this country rate the weight of their boats in short tons rather than long tons. Boat "B" is a much larger boat — 86 feet long, 19 feet wide, weighing 90.5 tons. When the speed is less than 10.2 miles per hour, boat "A" is the more easily driven. Above that speed the larger boat drives more easily. This is due partly to the increase in length which more than compensates for the increase in weight and also to the fact that the larger boat has a little better form for the speed.

These boats, which are of a modified ship form suitable for low speed-length ratios rather than the higher ones, are presented here for the purpose of drawing attention to the very rapid increase in horse power above 10 miles per hour. Boat "A" requires about 100 horse power at ten miles an hour and a little more than 200 horse power at 11 miles an hour. In other words, the power must be doubled to add that one mile in speed

(Continued on page 114)

"Cachalot" leaves the marine railway and heads for deep water

Building A Skipjack

Part II

By DAN MALLETT

BEFORE starting the planking the entire framework was given a coat of red lead to act as a preservative. As the garboards and a few adjacent planks would require steaming to follow the sharp twist in the forward sections, a steam box was made out of four 1″ by 8″ boards eight feet in length, with one end permanently closed. Our boiler consisted of a five-gallon galvanized oil can with two plumbers' blow torches for the heating unit. A piece of garden hose connected the boiler and the steam box. The planks to be steamed were inserted in the open end of the box, which was then closed by packing rags into the opening, and the whole business was allowed to cook for one and a half to two hours. We soon discovered that the desired effect of the steam upon the plank lasted for only about fifteen minutes, which meant some rapid manipulation of clamps and other similar devices of our own invention. The combination of handling the hot steamed planks and feverishly turning the clamp handles soon had our hands severely blistered, so it was with much rejoicing that we discarded the steam box after completing this part of the work. The remainder of the bottom and all of the sides involved no sharp twisting, so that the planks could be sprung into place cold, thus saving time, labor and language.

The edges of the bottom planking were planed flush with the chine, from the mast all of the way to the stern, and the side planking was allowed to overlap the bottom planking in this region. Forward of the mast, both the side and bottom planking was gradually beveled as it ran forward so that the planks were butting squarely against one another as they met the stem, where they were both in the same plane. Planks of 4″ width were used where steaming was required, and 6″ planks were employed for the cold bending. All of the seams were backed by ½″ by 2″ oak battens. The planking was secured to the battens by galvanized screws 4″ apart. This batten work stiffened her wonderfully. Notching out the frames to take the battens entailed considerable sawing and chiseling, but a few helpful friends came to our assistance. The planking was fastened with 2″ galvanized screws.

When the bottom and half of the sides were planked, we decided it was high time to turn her right side up. At this stage the boat weighed about 1,000 pounds, so that lifting her over by hand was out of the question. Three good sized blocks and tackles were rigged from the rafters directly over the boat, and rope slings were placed around the hull. By carefully sliding the slings around the hull after she was lifted off her supports, she finally assumed an erect position, and was then lowered on the blocks. This ceremony was almost as exciting as the final launching itself, for once right side up she was unquestionably a boat and from that time on ceased to be looked upon by our friends as merely a foolish experiment. After spending several hours admiring our creation in her newest phase, we set to work, with full confidence, to complete the remainder of the planking. With all of the planking in place, we fitted the outer apron pieces to the stem piece. The stem was built up of five separate pieces of oak; the central piece, which was bolted between the halves of the backbone; two inner aprons, beveled to fit the planking; and the two outer aprons, to protect the ends of the planks and carry out their lines. All of these members of the stem were set in marine glue and screw fastened.

With the hull thus roughly finished, we started work on the deck. The deck beams were given a crown of ½″ per foot of beam. Spruce was used for all beams, except those to which the mast partners were to be fastened, which were of oak. A spruce stringer was fastened to the ends of the short deck beams around the sides of the cabin and cockpit, to which the cabin sides and washboards were secured. The mast partners, deck hatch and a 4″ by 4″ sampson post were next fastened in place. The lower end of the sampson post was bolted to the backbone. This member provided a sound backing for the bowsprit, in addition to serving as a mooring post. The deck was ¾″ white pine, tongued and grooved, fastened to the deck beams with galvanized nails. The deck seams were now all planed even so that the canvas might go on smoothly. Twelve-ounce canvas was used to finish the deck, secured with marine glue and large galvanized tacks. The entire deck was then given a thick coat of shellac to fill the canvas.

The cabin was the next job. The cabin was kept low enough to maintain good lines and at the same time it provided sufficient headroom for a boat of this size. Its only objectionable feature is that the centerboard trunk takes up a good bit of space, but, of course, this is part of the price one must pay for the advantages of a small centerboarder. The cabin roof was crowned a full inch per foot, which necessitated putting the steam box in action again to bend the 1″ by 1½″ carlines. The cabin top was ⅜″ pine, canvas covered. A small sliding hatch provided an entrance to the cabin. A bulkhead

of ¾″ tongued and grooved pine was built at the after end of the cabin, and two small folding doors were made.

The cockpit floor was built on beams which joined the side frames of the hull, near the chines. These beams added to the strength of the hull by tying her sides together. The same arrangement was used forward of the centerboard trunk, to support the floor boards under the fore deck. The floor in the cabin was only about 5″ above the bottom planking, to save as much headroom as possible. The inside of the cockpit was sheathed, from the top of the washboards to the floor, with tongued and grooved wood. Small doors were fitted to open into the spaces under the decks so that these could be used for storage.

The bowsprit was carved out of a choice piece of 4″ by 6″ timber. We took great pride in this piece of work, since a bowsprit was something new in our lives. This member, when completed, presented a pleasing appearance, due to its gradually changing form. It was square where it joined the hull, and gracefully worked into an octagonal section and then into a circular form as it approached the outboard extremity. The inboard end tapered as it ran towards the sampson post and its upper edges were chamfered. The bowsprit was secured to the hull by three large galvanized carriage bolts through the forward deck beams. The curved piece of wood, used to carry out the lines of the clipper bow, was next fastened to the stem just under the bowsprit. What a difference these two members made in her appearance! Now no one asked that irksome question: Is she a sail boat or a motor boat? Bow rails were then run from the bowsprit to a point abaft the sampson post. These rails were tapered as they ran aft to give the bowsprit the appearance of coming out of the hull rather than of being bolted to the deck. A chock was cut in the forward end of each bow rail, to take the anchor line.

We were now getting into the finishing stages. Chain plates were made from ¼″ by 1″ galvanized strap iron, bolted to the hull. Main sheet and staysail sheet travelers were made from ½″ brass rod, threaded at either end, with a nut above and below the deck. The centerboard and rudder were made from 1⅛″ oak boards with galvanized iron rods driven through them. The centerboard was hung on a pin made from a piece of 2″ extra heavy brass pipe, which went completely through the trunk and was held in place by a wooden block on each side. Thirty pounds of lead in the board made sure that it would not try to float up on us unexpectedly while sailing.

Our next task was caulking, and covering the screw heads with a mixture of white lead and putty. A strip of cotton lamp wicking was run into all of the seams, over which seam composition was packed. The entire hull was given a priming coat of red lead, followed by two coats of thick gray deck paint to fill up the grain of the wood. The topsides were then given three final coats of black paint, and the bottom two coats of red copper. The deck, cabin, etc. received their final dressing. All of the cleats, as well as the tiller, were carved out of the scraps of oak left over from the frame work. When varnished, these cleats looked fully as ornamental as brass ones and at the same time represented a large saving.

We next started looking around for a mast. As none were to be found in our section of New Jersey, we headed for City Island where masts of every variety were to be seen but, strangely enough, few were for sale. Finally we located a mast which had been used on a Six-Metre yacht and arranged to have it shipped to Hackensack. The over all length of the original spar was 45 feet, so we cut it off to the required length of 33 feet and glued a new plug cap into the hollow end. The mast was now as good as new and we felt proud of our bargain.

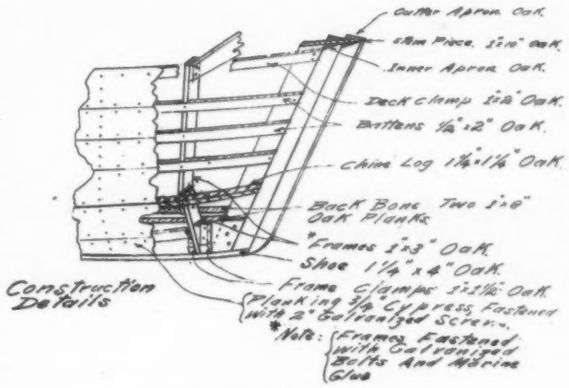
The boom was built up of four pieces of 1″ by 3″ spruce held together with marine glue. Sail track was screwed onto both mast and boom. The standing rigging was next. A spreader, in length the beam of the boat at the mast, was secured to the mast midway between the deck and truck. Three shrouds were rigged on each side; an outer one to the top, an intermediate one leading through the middle of each spreader and joining the mast halfway between the truck and the spreader, and the lower one, which met the mast directly under the spreader. This rig might seem a little overdone, but when we thought about the sail area of 377 square feet, which seemed, to our minds, very large, we figured that it would be wise to be on the safe side. Double backstays were rigged close to where the two headstays were secured. Each set of backstays led to a single block so as to reduce the number of ropes to be handled. Five-strand galvanized Swedish iron rigging ¼″ diameter was bought on South Street for $7.50. By the time we had finished making the required number of eye splices in this stiff wire, our hands were in a fairly raw state, but I don't think that we shall ever forget how to do this. In fact, when we got around to the rope splicing, we tried, from force of habit, to do it in the same way as wire. Turnbuckles of a suitable size were found in one of those bargain hardware stores on Chambers St., and a dozen of them were purchased for an even dollar.

We now started looking into the sailmaking business. After thoroughly covering City Island and New York City, we located a man on South Street, who gave us an estimate of ten cents per square foot for a well-made sail of six-ounce duck. This piece of luck hardly seemed possible, but after being shown some samples of his craftsmanship, we put our names on the dotted line with no

"Cachalot's" owners pronounce her an ideal small cruiser for a group of three or four who don't mind roughing it

further hesitation. This contract was made during January, which is a slack time for sailmakers and partially accounts for our great bargain. When completed, the sail certainly was a nice piece of work and we were more than pleased in every respect.

Our minds had been so full of the details of construction that it had never occurred to us that the "ideal boat" ought to have a name for the launching ceremony. It was finally agreed that Memorial Day would be a proper and probable date for the launching. During the preceding week, we racked our brains for the proper name. Our friends made numerous suggestions such as the *We-Made-It* and others of this type which would be perfect on a racing outboard hull, but were not dignified enough for the "ideal boat." The night before the launching we grew desperate. How could you launch a boat without a name, and merely refer to her as "it" or "she"? While pacing to and fro about the house, my eye happened to land upon a familiar book, "The Cruise Of The *Cachalot*." Why not call her *Cachalot?*


Construction Details
Outer Apron Oak.
Stem Piece 2½" Oak.
Inner Apron Oak.
Back Clamp 2½" Oak.
Bottoms ½" x 2" Oak.
Chine Log 1¼" x 1¼" Oak.
Back Bone Two 2" x 8" Oak Planks.
*Frames 1" x 3" Oak.
Shoe 1¼" x 4" Oak.
Frame Clamps 1" x 1½" Oak.
Planking ⅝" Cypress Fastened with 2" Galvanized Screws.
*Note: Frames Fastened with Galvanized Bolts And Marine Glue

Construction details of stem

The remainder of the morning was spent in working her off the blocks and onto the car which was to run her down the marine railway, and in giving her a final coat of copper paint. She was then rolled onto the marine railway, where she waited for high tide. By this time Bill and I were excited. Would she leak much? Would her water line be correct? High water was scheduled for a little after one o'clock, so we climbed aboard the *Cachalot* in preparation for the plunge. The lines which held her were cast off and she rapidly gained speed as she approached the water. What a thrill! Presently, we could hear the splash as her stern entered, and a second later she floated off the car and glided smoothly out into deep water.

After tying her up to the dock, we got into a row boat to inspect her water line, which balanced nicely and checked closely to the calculated displacement. We then went aboard the *Cachalot* and took a look under her floor boards. Sure enough, there was the inevitable water, but she was not leaking as badly as we had anticipated. In a few days she had swelled up reasonably tight, so we stepped her mast and set up the rigging. About 800 pounds of ballast, in the form of bricks, was stowed along either side of her backbone, which made her good and stiff and pulled her down to the load water line. We then set to work completing the odd jobs.

Cachalot went down the Hackensack River under the power of an outboard motor, and set sail for the first time in New York Harbor. She slipped along nicely in the moderate breeze and handled beautifully. She carried the desirable slight amount of weather helm, and pointed and ran far better than we had hoped for. As the breeze steadily freshened, *Cachalot* showed herself to be a stiff little craft. Once she gets her chine well planted in the water, it takes considerable wind to heel her any further.

In conclusion, we wish to say that *Cachalot* has proved to be an ideal small cruiser, on which three or four young fellows who do not object to roughing it can have a barrel of fun for the minimum upkeep and expense. Her entire cost was slightly over $250, which we feel is a lot of boat for the money — to say nothing of the pleasure of building her.

M. Rosenfeld

The latest Sea-Lyon runabout, a 28-footer which steps along at a 35-mile pace, is powered with the new Kermath Sea King 150 h.p. engine

M. Rosenfeld

The international racers get away for the final heat at New Smyrna, with the French boats well up

The Month in Yachting

American Outboards Win at New Smyrna

AMERICA and France divided top honors in the opening of the international Class X outboard motor boat championship series at New Smyrna, Florida, the first week-end of March, and left the crumbs to less fortunate and less well-equipped entrants in contests that drew thirteen contestants from six different countries.

Horace Tennes, the young Northwestern University student whose splendid showing in the American trials won him an appointment as captain of the United States team, won the first two of the string of ten races at ten miles which will decide the world championship, and Jean Dupuy, the youthful Parisian newspaper publisher who leads the French contingent, took the third.

Philip Ellsworth, the Bucknell University junior from Big Moose, N. Y., aided and abetted the efforts of Tennes ably. He was second in the first race, third behind Tennes and Dupuy in the second and was far out in front in the third test when a spectacular spill put him upside-down and left Dupuy to shade Tennes in a hair-raising finish.

Baron Alain de Rothschild, of France, had a third, fourth and fifth place to his credit; Walter Everett, of Tulsa, Okla., scored one fourth, and the only other driver to crash the pay-off positions was Manuel Giro, the Barcelona naval officer and electrical appliance manufacturer who took a third for Spain in the first contest.

The races at New Smyrna were efficiently handled by a committee from the Smyrna Yacht Club acting in coöperation with the international commission of the American Power Boat Association. Advance arrangements were perfect, the races were favored by good weather and a total of 45,000 persons witnessed the two-day regatta on the Indian River.

The drivers rose to the occasion with driving that was nothing short of spectacular. Despite the one-buoy hairpin turns at the extremities of the 1⅔ mile dog-leg course, fast times were made by the leading drivers. Tennes, who never averaged under 52 miles an hour in any of the three races, turned in the top speed of 52.631 m.p.h. in his first-race victory. Dupuy, after withdrawing because he fouled a buoy in the opening event, was extremely fast in the next two and established himself as the most serious threat among the nine European drivers. His best speed in the three races was 52.386 m.p.h. in the third event, which he won.

On the whole, the first three races of the series (which was completed at Palm Beach) bore out strongly the superiority of the American hulls. Light wooden boats of approximately 200 pounds with tanks, cushions, fuel pumps and such installed, handled the 65 horse power developed by the American engines far more efficiently than the fine looking equipment of the French and Spanish teams.

Both Frenchmen and Spaniards employed the huge 6-cylinder, 4-cycle, twin screw, supercharged Soriano motors that develop up to 93 horse power. But this great advantage in power over the United States team was offset by the heavier hulls in vogue abroad. The Frenchmen drove aluminum boats constructed by Riccardo Soriano, Marquis de Ivanrey. These were marvels of strong, watertight construction, to say nothing of comfort for the drivers, but they weighed something like 300 pounds in racing trim without their 150-pound engines, and with the exception of Dupuy's boat were deep displacement craft with almost barrel-like sections. Dupuy drove a new Soriano hull with a flat, narrow riding surface and wide, flaring topsides. At New Smyrna he was the only foreigner to give the Americans cause for worry.

The Spanish boats were of wood, but unusually heavy and only slightly less round under water than the metal Sorianos. The Hungarian and Swedish entries used American Elto 4–60 motors on hulls built here, and one Englishman, C. J. Turner, Commodore of the East Kent Yacht Club, likewise used an Elto machine on a hull built in England from American designs. Turner's teammate, Edward Treglown, of the Royal Motor Yacht Club, got nowhere with a Marelli hull pushed by a Laros motor. The Marelli was built, apparently, for straight runs, would not turn in less than 100 yards radius, and handled badly in broken water.

After the New Smyrna regatta, the fleet moved on to Lake Worth for the events sponsored by the Palm Beach Yacht Club in coöperation with the Florida Year-Round Club.

At New Smyrna points toward team trophy, in which only first places count, were: U. S. 2, France 1.

Points toward individual trophy (A.P.B.A. scoring system) were: Tennes, 1,161; Rothschild, 869; Dupuy, 761; Ellsworth, 685; Lukavecz, 617; Giro, 493; Everett, 458; Turner, 450; Oldenberg, 425; Gandara, 425; Barella, 289; Treglown, 196; Sauerberg, none.

EVERETT B. MORRIS

+ + +

No 1934 Harmsworth Race

UNDER the terms of the deed of gift governing contests for the British International Trophy, more familiarly known as the Harmsworth Cup, a challenge must be filed on or before March 1. Before that date, Hubert Scott-Paine, the British yachtsman whose *Miss Britain III* was defeated by *Miss America X* last September, had withdrawn from the field due to his inability to get engines of the type to drive a boat in such a gruelling race. A Canadian entry had also withdrawn several days before. This means that there will be no race for the Trophy before 1935.

+ + +

Orton G. Dale

IN RECORDING the sudden death of Orton G. Dale at Bayhead, New Jersey, it is unnecessary to emphasize that no one identified with yachting on Barnegat Bay was held in higher esteem by those who knew him, or occupied as deep a place in the affection of those who sail the bay — be they young or old. While walking alone on the ice of the bay on February 18th, near his home, he broke through a weak spot not over twenty feet from shore, and was drowned or succumbed to shock. He was 63 years of age.

Since he was a boy of ten, Mr. Dale has sailed or raced on the bay, on the shores of which he had lived during the summers for over sixty years, and which he visited nearly every week throughout the winter. The bay itself was a big part of his life and he was never so happy as when sailing on it in one of the numerous boats he owned during the last fifty years, or in helping improve the facilities for the use of its waters for pleasure purposes. No movement whose aim was to build up the sport of sailing but enlisted his support and his interest.

For many years Mr. Dale owned and sailed the 20-foot sneak box *Arran*, easily the most outstanding boat on the bay between 1906 and 1916, winning many championships in the class during those years. When *Arran* was at last outbuilt, he owned and sailed *Scotia* and *Soucie* in the same class. When the Class E scows came on the bay, Mr. Dale, to help the class get started, bought and sailed the *Witch*. She was followed by a Star Class boat, also named *Arran*, which he sailed up to the time of his death.

While keenly interested in racing, Mr. Dale was one of those rare sportsmen who cared more for the game than he did for winning. To play the game well, to get out of it all there was in it, meant to him more than the mere accumulation of trophies. Would that there were more who felt the same way about the sport!

Mr. Dale was the father of F. Slade Dale, whose voyages in small boats are well known to the readers of YACHTING through his all too infrequent articles in this magazine.

+ + +

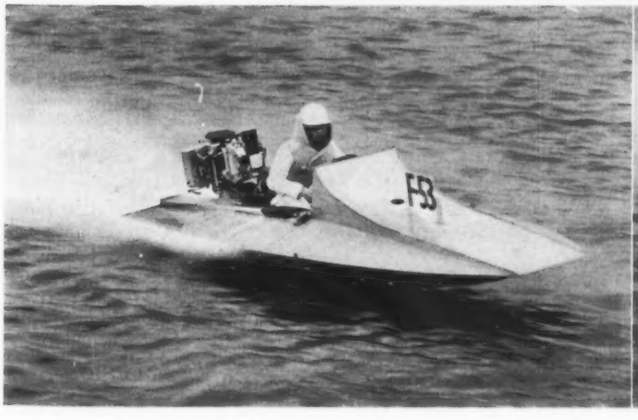
Gerbault at Marquesas

ACCORDING to press reports, Alain J. Gerbault, who is making a single-handed voyage around the world, has arrived at Akaui in the Marquesas, where he was most hospitably received by the natives. He sailed from Marseilles in October, 1932, and has called at Casablanca, the Cape Verde Islands, Martinique and Panama along the way.

Below, Jean Dupuy of the French team. His boat, with her Class X motor and unconventional lines, looks odd to our eyes

Photos by M. Rosenfeld

Left, Horace Tennes, Northwestern University student, won the International Trophy in Class X. Below, Walter Everett, of Tulsa, captured the Lipton Trophy in straight heats



The flag officers of the Royal Bermuda Yacht Club. Commodore H. D. Butterfield, Jr., is in the center, with Vice Commodore Bayard Dill on his right, and Rear Commodore James Pearman on his left

H. L. Hamilton

"Chandra," a 28-footer built from "Yachting" plans for Elmon Christopher of Olympia, Wash.

Bermuda Race Conditions

THE 1934 Bermuda Race will start off Sarah's Ledge, New London, at 8:30 A.M., Eastern Standard Time, June 24, and the finish will be off St. David's Head, Bermuda, the distance being about 650 nautical miles. As in the past, the race is run under the joint auspices of the Cruising Club of America and the Royal Bermuda Yacht Club, and under the management of the Race Committee of the Cruising Club.

Yachts eligible for the race must measure not more than 72 feet over all nor less than 35 feet, and will be divided into two classes, Class A comprising yachts of any rig rating more than 40 feet, and Class B those rating 40 feet and under.

In case of interference or a foul at the starting line, the offending yacht shall, if a protest is upheld, be penalized by having her elapsed time increased by five seconds a mile for the course of 650 miles. If a foul causes damage to another yacht's spars, gear or hull, which might affect her sailing qualities, the penalty is disqualification.

Entries must be filed on or before June 14th.

A West Coast "Gosling"

THE PLANS of *Gosling*, 21 ft. water line, were published in the July, 1932, issue of YACHTING. Elmon Christopher, of Olympia, Washington, liked the design so well that he built *Chandra*, increasing the size slightly to 28 ft. over all and 8 ft. 2 in. beam. Her sail area is 428 sq. ft. A single cylinder 4 h.p. Kermath gives a speed of 5 knots under power alone.

After nine months of cruising and racing, in the gusty winds and steep chop of Puget Sound, the new boat has proved her ability, particularly in windward work. She has not had to reef, yet has been able to hold her own with the light weather boats.

The design is from the boards of Charles D. Mower.

\+ + +

Ice Yacht Championship

THE Four Lakes Ice Yacht Club of Madison, Wisconsin, was awarded the annual Northwestern Ice Yachting Association regatta when, at the last moment, Gull Lake, Michigan, failed to provide anything but hazardous ice conditions. So twenty Wisconsin and Michigan iceboats were taken to Lake Mendota where they furnished perhaps the most spectacular races in recent years. Intense cold and strong winds caused a postponement until January 31st, when conditions were perfect, though five days' racing was compressed into three. Championships in each class went to the winner of three races, or to the highest point winner.

In Class A, O. Lyman Dwight's forward-steering *Marcia II*, of Pewaukee, was not in the pink of condition. Carl Bernard sailed Frederic Jungbluth's *Fritz* to win the Class A championship trophy from a fleet of eight 350-raters.

In the first A race, *Fritz* finished well ahead after covering the 12-mile course in 28:15. Wind was lacking the following afternoon, so the second and third heats were crowded onto February 2nd's card. Beaten by Perry Fess' *Miss Alice*, another Madison craft, earlier in the day, *Fritz* found the light wind of the afternoon more to her liking and hung up the winning time of 29:19 to take the title.

After two years of experimenting with the forward-rudder iceboat, Starke Meyer of the Pewaukee club reverted to the Hudson River type, *Paula III* carrying a cat rig, the first to be used in recent years on large craft, and won the Class B title. In the first B race, sailed in a whale of a breeze, *Paula III* was disqualified for rounding the buoys on the wrong side and victory went to *Ione II*, with Bill Dorrans of Madison at the tiller, the only qualifying boat to finish. Her time was 31:06 for the course of 12 miles.

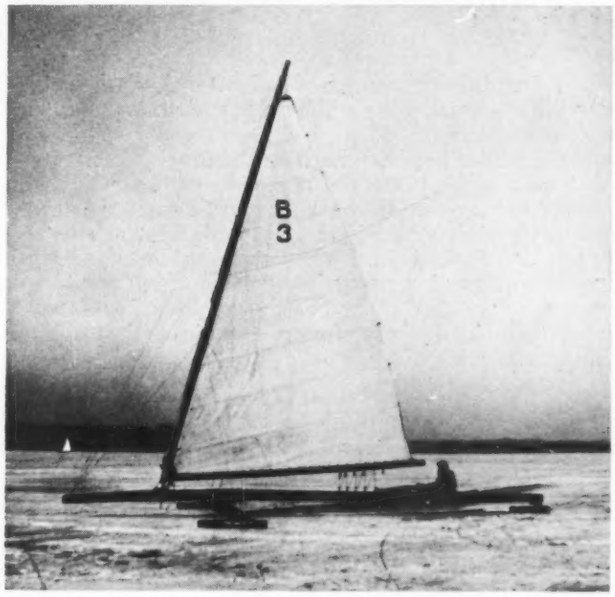
Patched up after a spill, *Miss Jane II* captured the second

race in 27:10, the best for the class. *Paula III* took the third and fourth and, with a previous second place, was the class winner. Her best time was 28:05.

Sailing to victory in three of the four Class C (175 sq. ft.) races, Ray Schroeder, of Oshkosh, captured the class title for the third consecutive time with *Sassie Sue*. His best time for the 9-mile course, 21:45, an all time Northwestern C record, was made in the first. *Stiletto*, sailed by Whitey Lewison of Madison, won the race that Schroeder lost in 28:20. *Stiletto* and *Miss Chicago* of the Delavan Lake Yacht Club, sailed by Don Campbell, tied for second place in the final standings with nine points each.

In Class E, for boats with 75 square feet of canvas, Ben Lambert's *Miss Oshkosh*, with Ray Schroeder at the tiller, beat *Me Me II*, a front-steerer sailed by Carl Bernard, and annexed the class honors.

Donnie D, a Class B owned by Joe Ditchl and sailed by Ed Friederick, took the free-for-all from a dozen craft of various ratings. *Fritz* was second and little *Sassie Sue*, with a C rig, third, leaving some A boats astern.



"Paula III," owned by Starke Meyer, won in Class B on Lake Mendota

At the annual meeting, Starke Meyer was named commodore of the Northwestern Ice Yachting Association to succeed Perry Fess of Madison. Francis Wahl, Menominee, Mich., was elected vice commodore, and Chris J. Meyer, Milwaukee, secretary and treasurer. Gull Lake, Mich., will be the host of next year's regatta, conditions permitting. Otherwise, Pewaukee Lake will be substituted.

J. J. FANTA

\+ + +

Veteran Yachtsman Dies

BEVERLEY JONES, of Toronto, died last month at the advanced age of ninety-four. He was the oldest member on the rolls of the Royal Canadian Yacht Club and until shortly before his death retained an active interest in its affairs, visiting the clubhouse two or three times a week. He was the last surviving member of the men who sailed on the schooner *Countess of Dufferin* when she raced unsuccessfully against the *Madeleine* in the contest for the America's Cup in 1876.

\+ + +

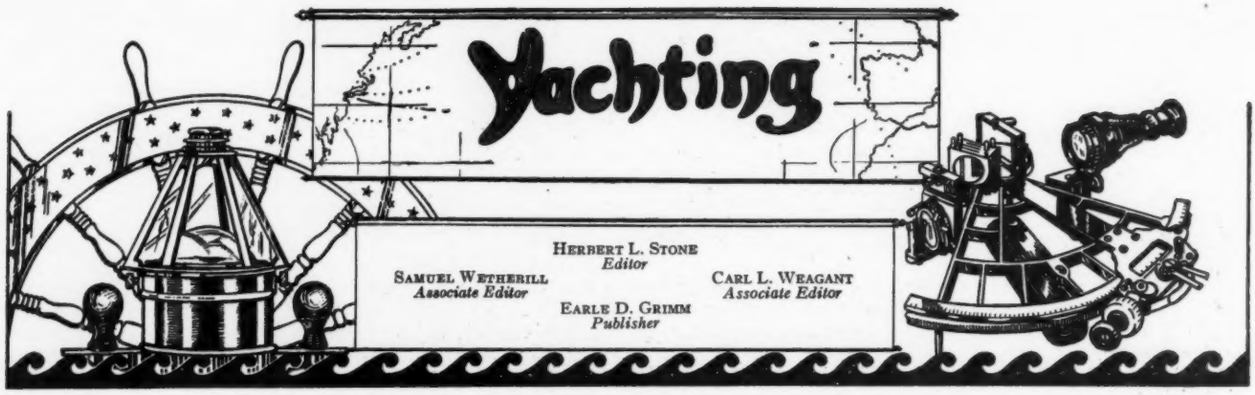
An International Dinghy Team Race in Bermuda

THWARTED by the worst ice conditions seen on the Atlantic seaboard in many a year, Frostbite sailors have decided to invade warmer foreign waters in order to satisfy their craving for competition in the little 11-foot dinghies which have had such a remarkable growth in the past three years. In other words, the enterprising Essex Yacht Club, of Essex, Connecticut, has challenged the Royal Bermuda Yacht Club to a dinghy team race to be sailed in Hamilton Harbor April 24th to 27th. The challenge has been accepted. The American dinghies will conform to the restrictions of Class A of the North American Dinghy Association, the team consisting of the following boats: *Liza*, Walter Rowe; *Vodka*, Dick Hill; *Banshee II*, Edward Devlin; *Twinkle*, Albert W. Erdmann, Jr.; *Fifi*, Samuel Wetherill; and *Fanny Dunker*, Mrs. Helen Hill. All are 11 feet 6 inches long, the first five being designed by John G. Alden, and the sixth by W. L. Warner. The Bermuda team will consist of six British-designed boats some six inches or so longer, with jib and mainsail rig of slightly greater area than the single lug sail carried by the American craft.

In some informal tilts a few months ago the two types seemed to be well matched, despite the disparity in size of hull and rig, the American boat being a bit faster in light weather, and the Bermudian craft showing to advantage when it breezed up.

In its first year of existence the Coronado Yacht Club has built many slips for mooring its fleet and has coöperated with the town in making improvements to the harbor

J. P. Medford



EDITORIAL

Gathering Headway

ALTHOUGH the abnormally cold winter, which even at this writing shows no signs of breaking, might have been expected to keep the thoughts of yachtsmen from turning to the water, such is far from being the case. Not in many years has there been as much spring activity in the yards where yachts are stored, and the demands of those who want to get afloat this summer are loud and insistent. Also, and best of all, there is a pronounced quickening in the designing and building of new yachts of medium size. Drafting boards are being dusted off after several years of disuse, and the sound of band saws, drills and hammers is again being heard in boat shops along the waterfront. Boat builders are once more finding employment.

Now the foregoing is not just the usual cheerful note we editors like to sound at this time of year, when one begins to look for the sun to shine on both sides of the fence. It is not just an expression of what we hope, but is based on hard, concrete facts that are an assurance that those who have been forced by circumstances to play the game moderately for several years are going to play it hard this summer. There is a definite shortage of used boats for sale, due, we are told, to the fact that those who own desirable yachts won't part with them. There are but few really good cruising boats, either auxiliary or power, on the market except at good prices. The same holds true in many of the smaller racing classes, and this has been largely responsible for much of the new building. It is a good sign and bespeaks a confidence in the future that has been lacking since 1929. As yet the activity has not spread to large cruisers or racing yachts; but it will surely follow, and the race for the America's Cup this year should help in this direction.

We are not only set to go — we have actually started and are gathering headway.

\+ + +

Ice Boats Have Their Innings

THE hard winter we've just experienced has been a godsend to one class of "yachters" — the ice boatmen. After several years of poor ice conditions the hardy sailors who like to brave the winter winds on runners have had plenty of sport both on the Atlantic Coast and in the Middle West. In mid-March they are still at it. And if you want to hear tall tales of real speed under canvas just talk to a bunch of ice boat sailors when they foregather around the clubhouse fire of an evening and swap experiences.

If the winter has been hard on the dinghy Frostbiters (as it has been), it has not succeeded in keeping them housed just because the harbors were frozen up. Dinghy rigs on ice boats provided plenty of sport where the owners of dinghies were adept with hammer and saw, and showed any ingenuity. Though the result would not always have filled a dyed-in-the-wool ice boater with envy, it provided plenty of sport — which is the essential thing, after all.

\+ + +

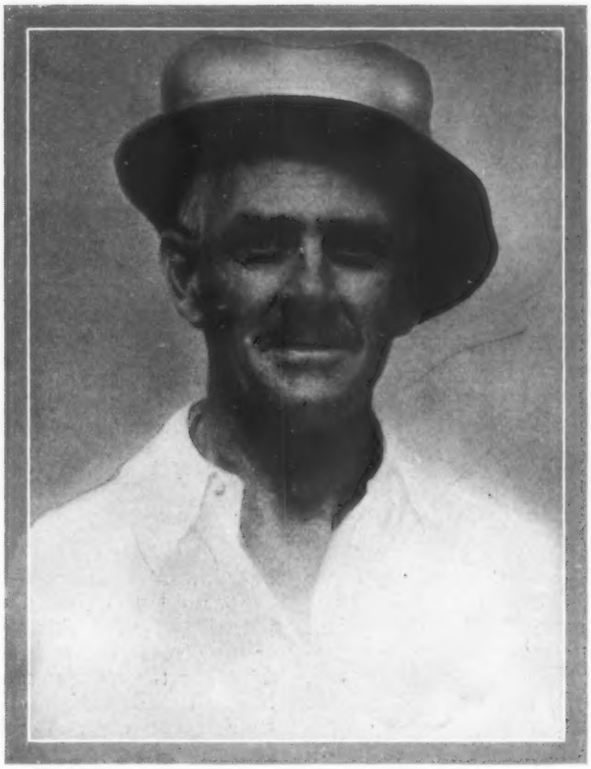
No Harmsworth Race This Year

IT IS to be regretted that the coming year will see no race for the Harmsworth Cup at Detroit. It seemed after last year's race that the British challenger for this most famous of speed trophies, Mr. Hubert Scott-Paine, was really getting somewhere, and it was expected that his bid this year would be a worthy one. He is a good organizer and a skillful driver and designer. With more power at his disposal he would have been a dangerous rival. But after challenging, he recently wrote that he would have to withdraw, due to his failure to get the engines he needed for the attempt. Too bad! A challenge for the trophy from Canadian sources has also failed to materialize.

Thus it seems that we shall have to look to the Gold Cup Class, and the foreign 12-litre boats performing at Palm Beach as this is being written, to furnish the thrills of the season in the speed line. Not overlooking the outboards, of course. The new Class X motors, seen here this year for the first time, promise some new records in this fertile field of endeavor.

The hulls that were brought over by the foreign drivers also afford a good comparison with what we have developed here for carrying outboard engines. As yet, we see no need to abandon the line of development we have followed in this country. Except in rough water conditions, our lighter hulls seem to have the edge on the heavier foreign metal boats. The French boats seemed a more finished job than ours, and a streamlined wind shield offered more protection to the driver, but in smooth water they did not seem to have the speed, even with the higher-powered engines, which were said to develop some 30 h.p. in excess of the American motors.

IN THE WORLD OF YACHTING



WILLIAM C. FINLEY

JUST across the Canadian border, where he has sailed and raced boats on Lake Ontario and Lake St. Louis for nearly fifty years, William C. Finley is known to every yachtsman from Toronto to the sea. On this side of the international line he is almost equally prominent, largely through his long connection with the defense and quest of the Seawanhaka Cup, which occupied most of his attention from 1903 to 1910. As Commodore of the Royal St. Lawrence Yacht Club for two terms, 1904–5 and again in 1925–26, and Honorary Commodore since 1927, he has been a staunch supporter of the sport, always ready to help in any movement that would promote Canadian or international yachting, always generous with his time and ever ready to help financially.

William C. Finley ("Uncle Bill" to his friends) began his sailing career on the St. Lawrence in 1884 in a sailing canoe when that type of small craft was popular. Five years later he joined the Royal St. Lawrence Yacht Club and became a member of the crew of the sloop "Chance," and subsequently of the "Frolic" with Kirk Green and W. A. C. Hamilton. The first yacht he owned was the "Thorella" (a name to which he was partial), 1901, which he sailed with that crack skipper Charles Routh, who has been his sailing partner ever since. That year he was also a member of the syndicate that built "Trident," the first double bilgeboard boat that Herrick Duggan designed. Two years later he had "Thorella II" built, which successfully defended the Seawanhaka Cup, captured by Canada in 1896. In 1904 he sailed with Routh on the "Noora" which turned back the White Bear Yacht Club in its quest for the same cup, and the following year he was one of four men who built the "Alexandra." But this time they lost to the Boardmans of Boston, and the "Manchester" brought the Seawanhaka Cup back to the States. In 1910 he was again after the old trophy in the "St. Lawrence," but she was defeated off Manchester. Later he bought this scow and named her "Thorella III."

His present yacht is "Thorella IV," an auxiliary yawl designed by Herrick Duggan, and in her he cruises for three or four months each year and races whenever the occasion offers, mostly at the L.Y.R.A. meets, where he has won several championships.

Under the Lee of the Longboat

by Cap Stan

CAPTAIN TOM DRAKE, the indomitable skipper of the 37-foot schooner *Progress*, easily takes the palm for being the most nonchalant single-hander of all time. Ever meet him? He's a jolly old soul — short, almost squat. Hard-bitten mug with an undershot jaw. Walks with a decided limp. And has a merry twinkle in his keen orbs. Don't try to "kid" him — you'll come off second best. Well, he's still up to his old tricks, to judge by a clipping I just received, cut from the *Honolulu Star-Bulletin*. Here are a couple of excerpts: "'I just lashed the wheel and let her go.' That was the way Captain Drake, 71 years old, crossed the Pacific in his rugged little yacht, *Progress*, 24 days out from San Diego. All the way over he did not lower sail, and was at the wheel less than two hours during the trip. 'The *Progress* was going all the time, I didn't miss a wink of sleep, and we just kept plowing along 24 hours a day.'" Nonchalance? Self-steering? You tell me.

+ + +

Many thanks to George Elder for his article last month, entitled, "Why Glorify the Rule-Breaker?" Any yachtsman who fails to read and cogitate over that article is doing an injustice to himself and those against whom he races. Especially do I commend this article to the consideration of race committees, in all waters, and of all nations. Careless, sloppy skippers, and sharpshooters, should be cured of their bad habits. Careless, sloppy, inefficient race committees should be replaced by committees who know their business and are not afraid to enforce the rules. The sooner the better.

+ + +

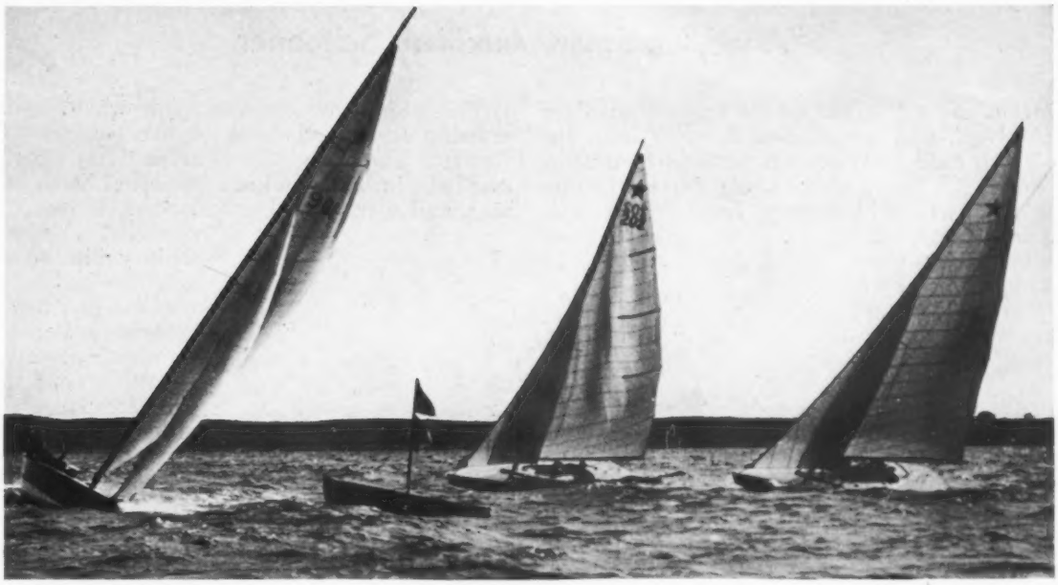
Just had a letter from a friend of mine, who recently went all over *Endeavour*, the America's Cup challenger, at Nicholson's Gosport yard. This chap is a pretty keen observer, and knows his boats. Here are some of his comments about *Endeavour:* "She's slightly longer on the water line than *Velsheda*, and has a longer stern overhang . . . characteristic Nicholson tumble home . . . . deck line diamond-shaped . . . . the two top seams are lapped, the others are butted with a batten inside . . . she will have a small balancing centerboard, and wooden rudder . . . the boom will be very deep, built up of wood, and will be flexible . . . Sopwith is going at this thing in dead earnest . . . two of the stress experts from the Hawker Aircraft Co. are devoting their entire time working out the stresses in boat, fittings, rigging, etc." So, it appears certain that the familiar hit-or-miss methods followed in developing several previous challengers are being replaced by modern, up-to-the-minute, systematic procedure. Undoubtedly, these new methods will be continued right up to the start of the first race for the cup — outfitting, tuning, organizing crew and afterguard, trying out, and so on. Is there a single remaining doubt about the coming contest being a real one, rather than a walkover, as in 1930? Not with me, anyway. I wouldn't miss the 1934 races for a new suit of sails for my tubby hooker — and how I need that new suit!

+ + +

You'll be getting your mooring ready pretty soon — the season is about to open. Remember what I told you last fall about mooring pennants — how they rotted out during the season, and caused many fatalities in the bad fall weather? Well, that rope I mentioned — the one impregnated with what seems to be copper paint — is still on the market. It will last a full season — maybe more — without being seriously weakened by rot or the attacks of worms, or what have you. It costs no more per pound than ordinary rope. Use this rope for mooring pennants, keep your chafing gear in good shape, and sleep soundly when the wind howls.

+ + +

Certain racing skippers are invariably somewhere in the forefront, regardless of what boat they are sailing, and regardless of what class they are sailing in. On the other hand, there are many others who never get anywhere in particular, no matter what boat or what class they sail in. One of the many reasons for this is clearly explained by H. A. Calahan in his article in the last issue, entitled, "Taking Advantage of a Shift of Wind." If you happen to be one of the "also rans," read Calahan's article. You're sure to learn something.



Rounding the weather mark in the first race of the Walker Cup series — "San Cristobal," "Ace," and "Gull"

International Star Races at Nassau

American Yachts Capture Honors in Spring Championship Regatta

INTERNATIONAL Star Class racing made its debut in the Bahamas the first week of March. The week of racing, which marked the official opening of the new Nassau Yacht Club, added another annual championship to the Star schedule.

Adrien Iselin, sailing *Ace* for Western Long Island Sound, and Paul Shields, who represented the Peconic-Gardiners Bay fleet, in *Gull*, divided the honors in the two major events. The former won the Spring Championship, while the latter annexed the Johnnie Walker Cup. Both played important parts in the clean sweep which the Americans scored in the International Team Race.

Bad weather forced the Race Committee to postpone the start for two days and order a double-header on March 3rd. These two races, one in each series, were both won by *Gull*, in an 18-knot breeze. *San Cristobal*, sailed by R. Gustavino of Great South Bay, in the Walker Cup races, placed second in the morning race, with *Ace* third. In the title contest sailed in the afternoon, *Ace* was second with *Winsome* third.

On the fourth, in a slightly more moderate breeze, *Ace* took the lead from *Natty Bumppo* shortly after the start and held it until the finish. *Sandy Mac*, the local entry, finished second but was later disqualified, and this proved to be the crucial incident of the Johnnie Walker series. It moved *Gull* up from fourth to third place and gave Shields the one point necessary to win the trophy.

Again a double-header was sailed in a light southeasterly, which was even lighter in the afternoon. *Gull* ghosted away from the field in both races with *Ace* second. *Gull* had now two wins in each series; the Johnnie Walker Cup was already won by the scanty margin of a single point; *Gull* had won both championship races and had a two-point lead over *Ace*.

In the final race for the Spring Championship, little more than a drifting match, *Shucks* was first across the line. *Ace* passed her before they had reached the first mark, with *Natty Bumppo* third. *Gull* was last to start, appeared to sail into all the flat spots and was last to finish. Her two-point lead vanished, but the two firsts gave her second place in the series.

In the Team Race the American quartette made a clean sweep.

The week ended in a blaze of glory with a banquet at the club, a turtle bake, at which prizes were awarded. To Commodore R. T. Symonette goes the credit of organizing the regatta and doing much of the work which the successful carrying out of such an event requires.

STAR CLASS SPRING CHAMPIONSHIP

Yacht	Skipper	Fleet	Pts.
Ace	A. Iselin	Western L. I. Sound	22
Gull	P. Shields	Peconic-Gardiners	18
Natty Bumppo	S. Smith	Lake Otsego	14
Winsome	H. Edwards	Peconic-Gardiners	14
Sandy Mac	H. Knowles	Nassau	13
Zelda II	C. Arteaga	Nassau	12
Shucks	E. S. White	Western L. I. Sound	11
San Cristobal	J. W. Pape	Fort Lauderdale	3

JOHNNIE WALKER CUP SERIES

Gull	P. Shields	Peconic-Gardiners	31
Ace	A. Iselin	Western L. I. Sound	30
San Cristobal	R. Gustavino	Great South Bay	28
Natty Bumppo	S. Smith	Lake Otsego	21
Sandy Mac	H. Knowles	Nassau	19
Zelda II	C. Arteaga	Nassau	18
Winsome	H. Edwards	Peconic-Gardiners	18
Gray Flash	E. T. Fox	Western L. I. Sound	12
Shucks	E. S. White	Western L. I. Sound	11
Zelda	R. T. Symonette	Nassau	6
Dolphin	R. Arteaga	Nassau	4

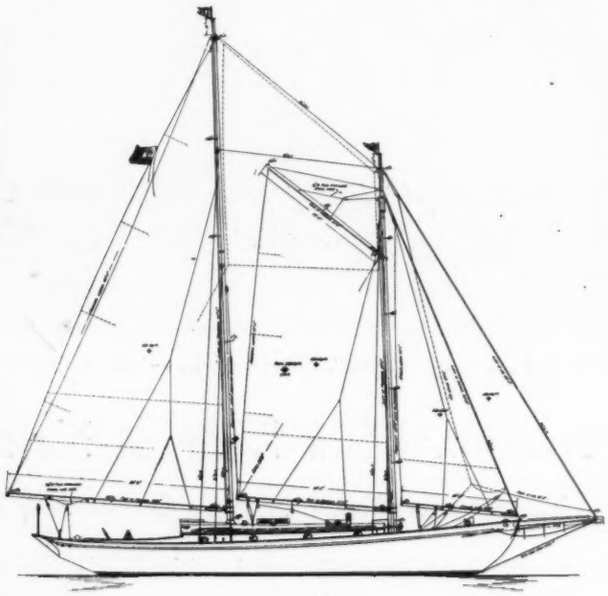
INTERNATIONAL TEAM RACE

U. S. A.		Pts.	Nassau		Pts.
Winsome	Edwards	8	*Dolphin*	R. Arteaga	4
Gull	Hodge	7	*Zelda II*	C. Arteaga	3
Ace	Iselin	6	*Zelda*	D. Knowles	2
Natty Bumppo	Smith	5	*Sandy Mac*	H. Knowles	0
Total		26	Total		9

"Anad," a Smart Auxiliary Schooner

THE first of New England's 1934 crop of auxiliary yachts, *Anad*, was launched in January from the yard of Willis J. Reid, at Winthrop, Massachusetts. She was built for F. G. Dana, of St. Louis, Missouri, from designs by Furnans Yacht Agency, Inc., of New Bedford, Massachusetts, and shortly after being commissioned started for Florida waters, where Mr. and Mrs. Dana will cruise before returning north in the spring.

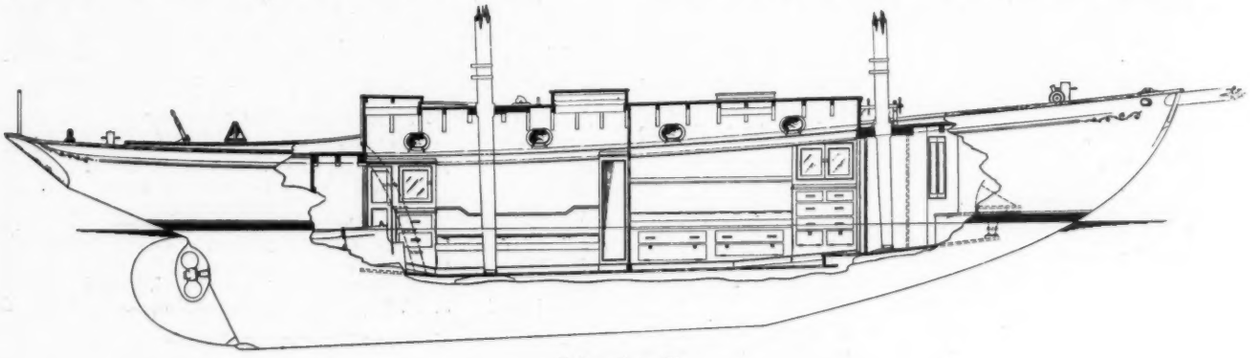
Anad's dimensions are as follows: l.o.a. 45′; l.w.l. 34′ 9″; beam, 13′; draft, without centerboard, 4′ 6″; sail area, four lowers, 1023 sq. ft. She is a smart-looking, able and comfortable cruising schooner of the shoal draft type, with centerboard housed entirely below the cabin floor. Speed was not sought for in particular when the design was drawn up, but her proportions and lines are such as should produce a smart craft to take her place alongside *Musketeer*, designed by the same firm. The rig has been designed to give a large foresail and forestaysail, highly important sails when real grief is encountered, while the jib-headed mainsail will do fine work in all ordinary weather.



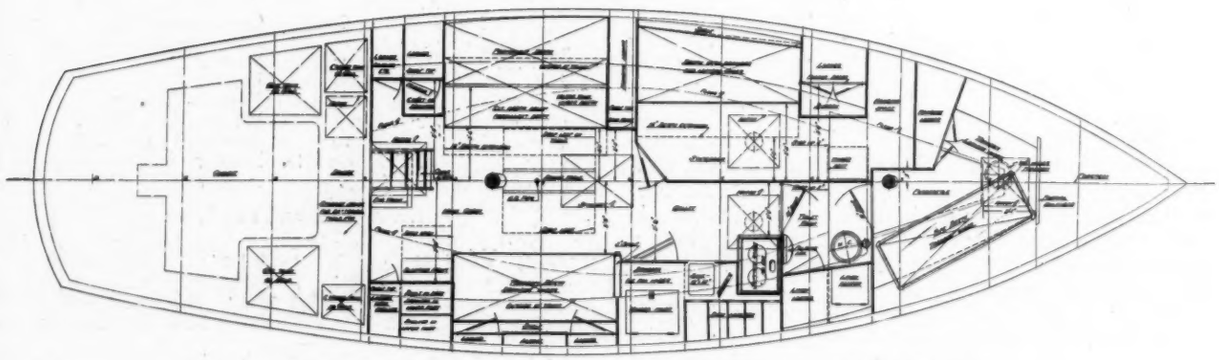
Sail plan

The interior arrangement plan provides comfortable cruising accommodations for five persons aft and one forward. The main cabin is attractively fitted out with one built-in berth and one extension berth on the port side, and a transom berth, lockers, bureau, desk, etc., opposite. Forward of the main cabin, to starboard, is a fine galley, with both coal and gas stoves, ice box, dresser, lockers, etc. This arrangement of cabin and galley in one big, open compartment gives a sense of roominess and coziness rarely found in a yacht of this size. Opposite the galley is the owner's stateroom, with an unusually large double berth, bureau, locker, etc. There is a fine toilet room at the forward end of the cabin trunk. Forward of this is the forecastle, with pipe berth, toilet, lockers, etc.

The power plant in *Anad* is a 4-cylinder Red Wing Arrowhead motor, with 2:1 reduction gear, which gives a speed close to 8 miles an hour in calm water. Tanks for water and fuel are ample for extended cruising. All told, *Anad* looks like an excellent craft for the purposes for which she is intended, and her performance will be watched with interest.



Inboard profile



Cabin plan of "Anad," designed by Furnans Yacht Agency, Inc., for F. G. Dana

The plans reproduced in this section are the property of the designers under whose name they appear. Further information concerning any design should be addressed direct to the naval architect in question.

An Attractive Cruising Cutter

THE plans on this page are from the board of Burgess & Donaldson, Megargel & Gruber, of 307 East 44th Street, New York, and show an attractive cruising cutter which is being built by Julius Petersen, of Nyack, for a member of the New York Yacht Club, and which should be completed by May 15th. Following are the principal dimensions: l.o.a. 39′ 10″; l.w.l. 30′; beam, 10′; draft, 6′ 2″; displacement, 22,200 pounds; outside ballast, 8250 pounds lead; inside ballast, 600 pounds lead; sail area, 901 sq. ft.

To quote from a letter from her designers: "We have attempted to design a very comfortable cruising boat of this length, with an easily-driven hull that will be able to go to windward. You will note that the center of displacement is pretty well forward, and that we have given the boat plenty of forefoot, a long lateral plane, good freeboard, and fairly high bulwarks.

"Although she was not designed to any particular rule, we figure that she will rate about 31 under the last published Measurement Rule of the Cruising Club.

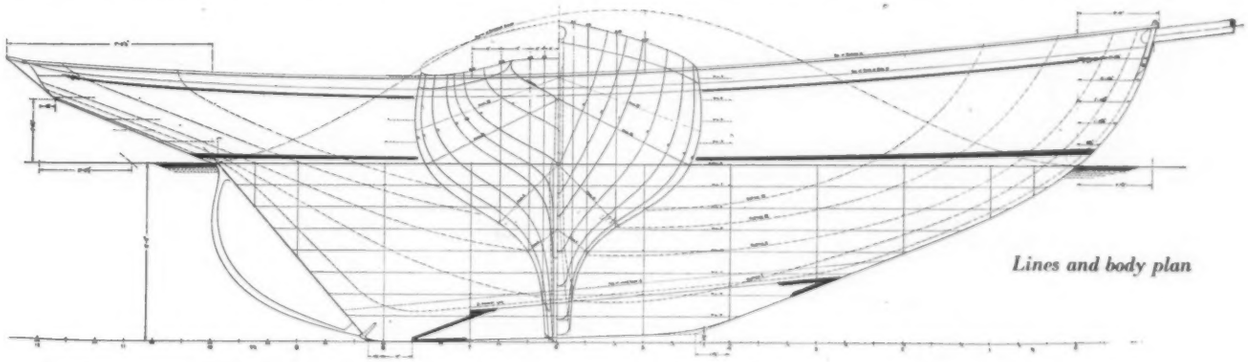
"The interior arrangement shown was designed to meet the particular requirements of the owner, but the boat will very readily take a more conventional arrangement of double stateroom forward and main saloon where the owner might desire a paid hand."

Sail plan

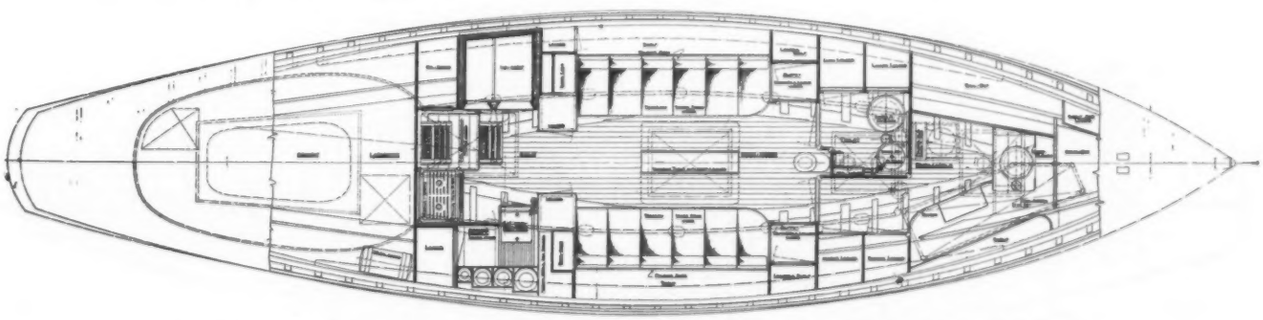
The general scantling specifications are considerably in excess of Lloyd's. The garboard is of teak, and planking of Peruvian cedar, bronze-fastened. Teak is used for sheer strake, rail, main deck, cockpit deck, cabin floor, hatches and trim. All spars will be hollow, and rigging, turnbuckles, fittings and sails will be of the highest quality.

For auxiliary power, she will have a 4-cylinder Gray Sea Scout, which is to be used primarily for getting around in calms. Ample tankage is provided for both gasoline and water. The galley stove will burn alcohol, and the ice box is not only of unusual size, but is particularly well insulated.

The profile of this newcomer resembles that seen on foreign-designed craft of this type, with rather short overhang forward and fairly lengthy counter. Stepping the mast through the trunk cabin is a feature which will not appeal to our British cousins, but is nevertheless accepted practice on this side of the Atlantic. She should sail decidedly well.



Lines and body plan

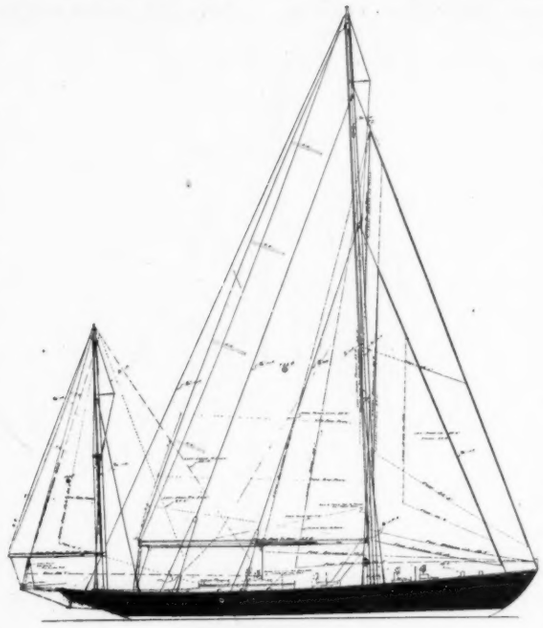


Interior accommodation plan of the 40-foot cutter designed by Burgess & Donaldson, Megargel & Gruber

Watch This Boat in the Bermuda Race

ONE of the most interesting contestants in this year's Bermuda Race will be the smart-looking yawl whose plans appear on this page. She has been designed by Sparkman & Stephens, 11 East 44th Street, New York, to be as fast a boat as possible under the new Cruising Club measurement rule, and is now being built at Nevins' Yard, City Island, for Philip LeBoutillier, who has made good showings in long distance races recently in *Alsumar* and other craft. Following are the principal dimensions: l.o.a. 53′ 11″; l.w.l. 39′ 8″; beam, 12′ 6″; draft, 7′ 11″; sail area, measured, 1300 sq. ft. It is believed that her rating will be close to 41 under the rule, which would place her near the bottom of Class A under the new method of classifying yachts by rating rather than by over all length.

To quote from a letter from Olin Stephens: "She is really just exactly what I think the rule encourages. Her ends are short, beam ample, and displacement moderate. Personally, I should like her better with less beam, although she should be faster under the rule as she is. The beam and displacement are both slightly under the figures set by the rule.

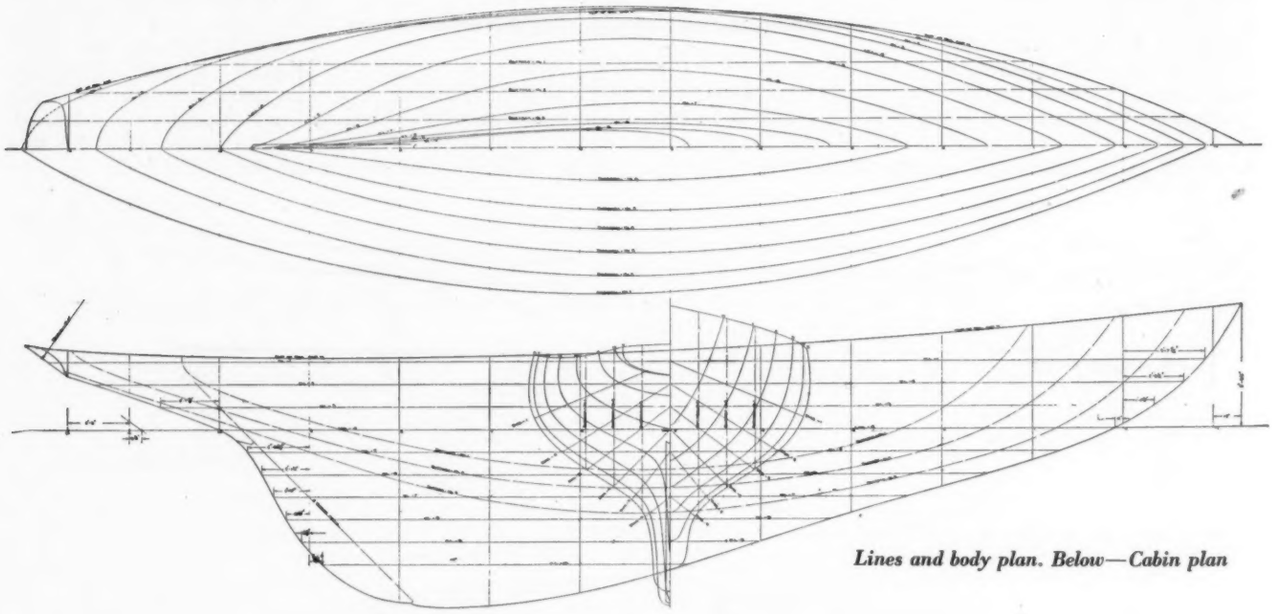


Sail plan

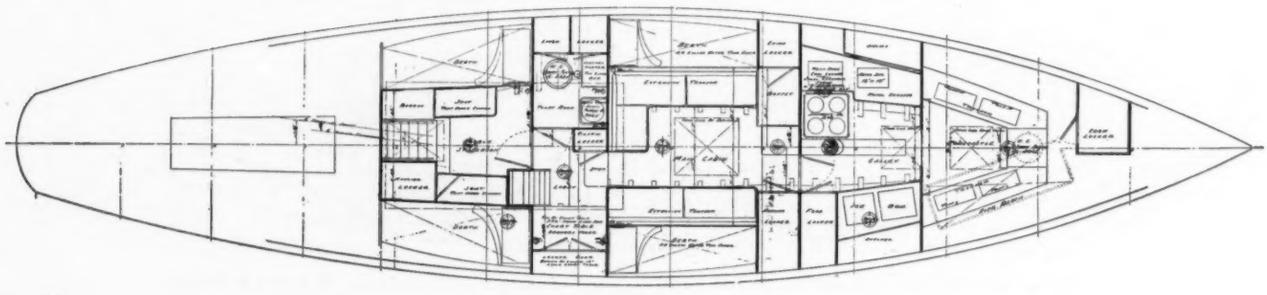
"Her yawl rig is based on *Dorade's*, but has been worked out more from the racing angle, as we are going to try out a single working jib. The three spreaders have been adopted to make it possible to carry a small Genoa jib."

The interior layout shows fine accommodations, laid out with ocean racing in view, the double companionway being somewhat of an innovation.

The double stateroom aft is spacious, with bureau, hanging locker, etc. The navigator's compartment is abreast the companion steps, and toilet room opposite. The main cabin has four berths, buffet, hanging locker, etc., the athwartships galley is quite large, and the forecastle sleeps two men.



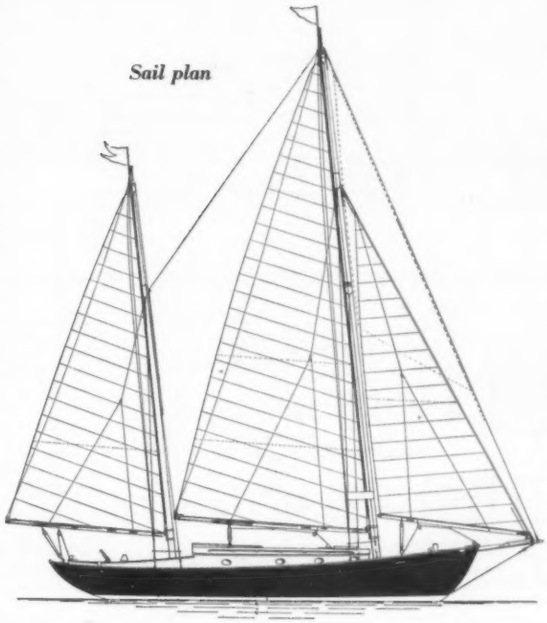
Lines and body plan. Below—Cabin plan



An Auxiliary Ketch With Canoe Stern

HERE we have the plans of an attractive auxiliary cruising ketch from the board of C. G. McGregor, of East Lynn, Mass. She is a sightly craft of pleasing form and normal dimensions, the principal departure from ordinary cruising craft being seen in the so-called canoe, or sharp stern, a feature seldom seen in American waters, but quite popular abroad. Following are the principal dimensions: l.o.a. 36′; l.w.l. 28′; beam, 10′ 3″; draft, 4′ 11″; outside ballast, 5500 pounds; sail area, 676 sq. ft.

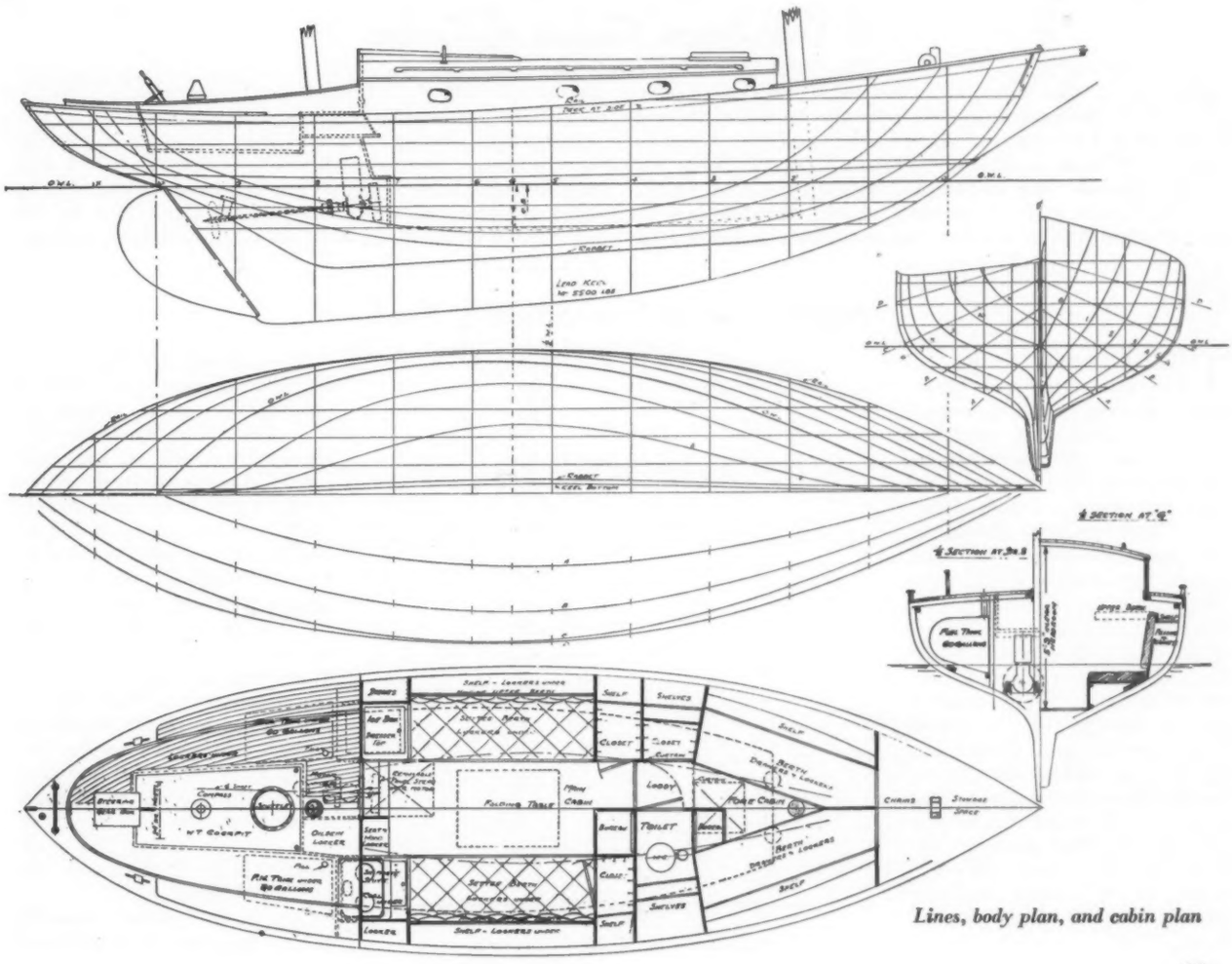
The jib-headed ketch rig is simple and effective, easy to handle, and gives several combinations of sail for bad weather with a minimum of reefing. The motor shown is a single cylinder, 5 h.p. machine, installed off center, and is sufficient to plod along with in a calm, though it might be considered by many to be too small for this size boat.



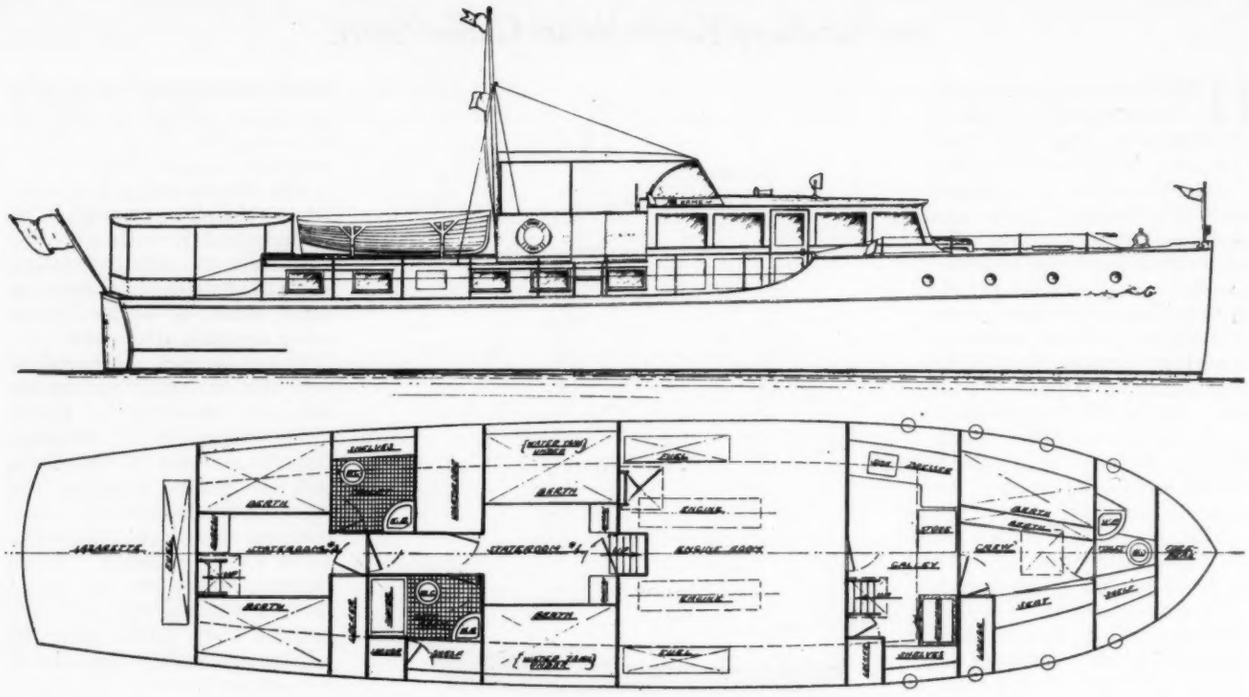
Sail plan

The construction has been kept as simple as possible. The cabin trunk is wide and the side decks narrow, permitting the use of settee backs in the main cabin as upper berths when occasion demands.

The interior arrangement provides a double stateroom forward, main cabin amidships, and galley aft. Between stateroom and cabin is a toilet room and closet on the starboard side, and two large hanging lockers opposite. Each cabin contains a small bureau, and there are many lockers, shelves, etc., throughout the boat, a feature which will be thoroughly appreciated by experienced cruising yachtsmen everywhere.



Lines, body plan, and cabin plan



Outboard profile and interior accommodation plan of the Grebe-designed 58-foot power cruiser

A Twin-Screw Cruiser by Grebe

ABOVE are the plans of an attractive 58-foot, twin-screw deckhouse cruiser from the board of Henry C. Grebe & Co., Inc., of 400 North Michigan Avenue, Chicago. She is a somewhat larger boat of the same general type as the 50-footer *Nagerac*, plans of which appeared recently in YACHTING, except that the layout below decks differs in that the new craft has the two staterooms aft, rather than the fore and aft arrangement which was used in the earlier craft.

The speed of this craft will vary between 15 and 20 miles an hour, depending upon the power installed. She should appeal to a large number of yachtsmen who desire really comfortable accommodations, and yet do not want a large yacht with its attendant high upkeep.

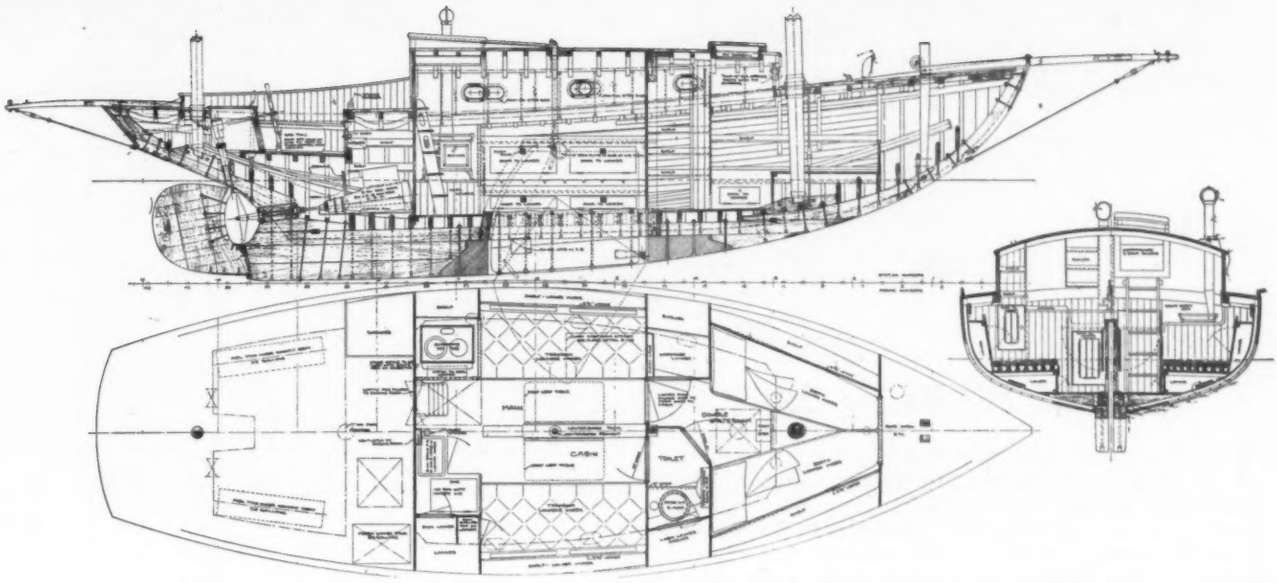
Alden's Latest Centerboard Yawl

THERE seems to be an increasing demand these days for cruising auxiliaries of moderate draft, not only because many people wish to cruise where the water is a bit thin, but because many of our yacht harbors are quite shoal, and some are getting shoaler as they gradually fill up. So the plans on this and the following page, from the board of John G. Alden, of 131 State St., Boston, should be of particular interest. They show a sightly little yawl with typical Alden profile and jib-headed rig, a type which Mr. Alden has developed successfully over a period of years. Following are the principal dimensions: l.o.a. 35′ 4″; l.w.l. 27′ 4″; beam, 11′ 6″; draft, without board, 3′ 10″; draft, board down, 7′ 8″.

Sail plan of the Alden 35-foot yawl

There is plenty of beam for stability, backed up by enough outside ballast to make her uncapsizable. Despite the moderate depth of hull, she has full headroom in the cabin without resorting to an unduly high, unsightly cabin house. The interior layout is more or less conventional, with stateroom forward, main cabin amidships, and galley aft. The toilet room is located between main cabin and stateroom, being accessible from either. An unusually large wardrobe locker is located opposite the toilet room. A useful fitting in the cabin, unusual in so small a boat, is the folding chart case, which keeps these unsightly rolls from under the cabin beams.

The power plant, installed in a separate compartment



Inboard profile, cabin plan and midship section of the Alden-designed yawl now building for a New York yachtsman

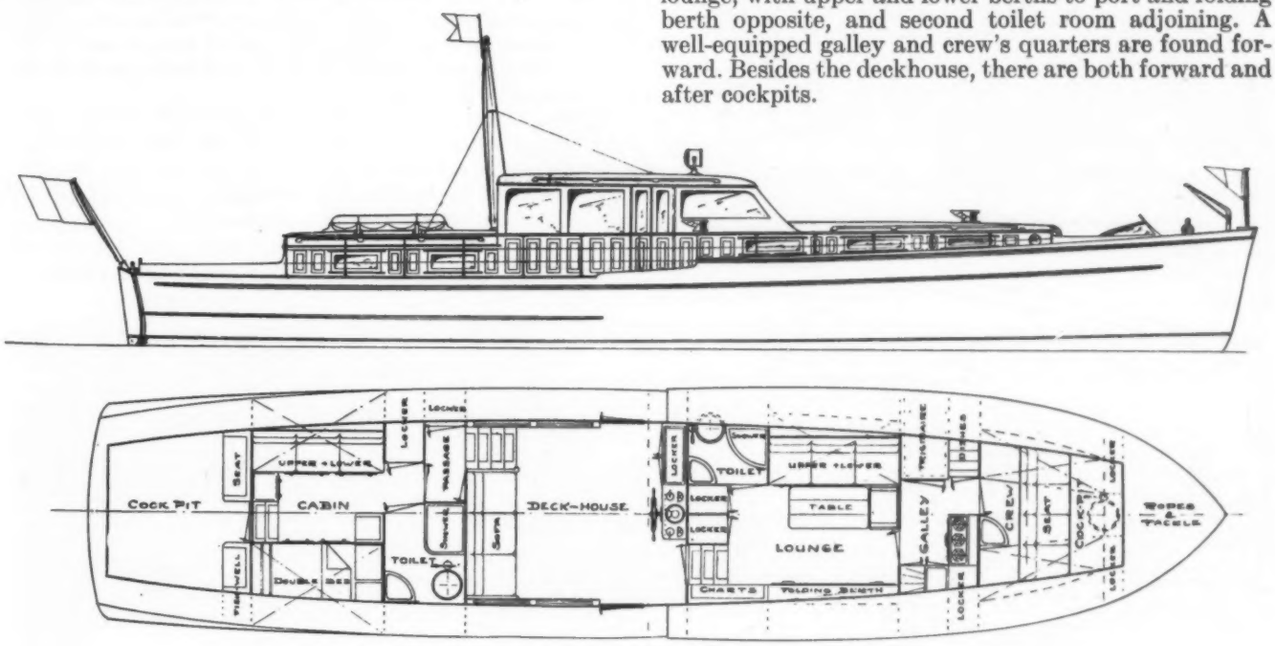
under the bridge deck, is a 34 h.p. LH4 Lathrop, which drives a feathering wheel, and should kick the little cruiser along at a lively clip, even against a choppy sea. All controls are conveniently placed in the cockpit.

A Fast and Able a.c.f. Express Cruiser

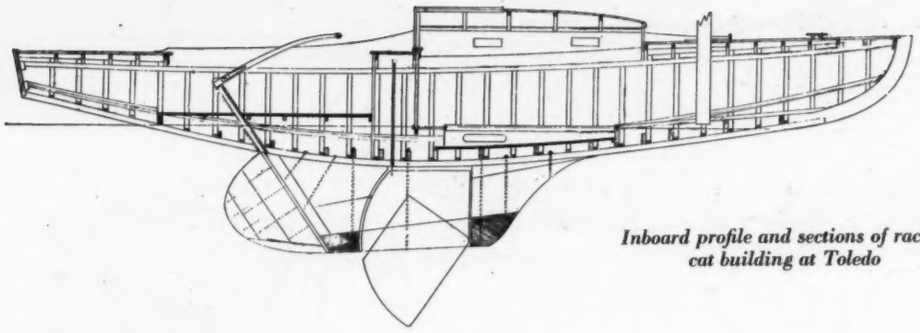
FOR the past two years Mr. Firmin V. Desloge, of St. Louis, has been using an a.c.f. 38-foot express cruiser, powered with a pair of Scripps 175 h.p. motors, and going 60 to 75 miles offshore from Nantucket for swordfish. Wishing a larger and faster craft, he is now having built the special a.c.f. 56-footer whose plans appear below, which will step out at a 29-mile clip with her twin Hall-Scott Invaders.

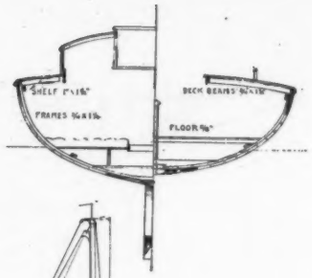
This attractive craft will also be used for swordfishing, and will be equipped with a chromium-plated fishing pulpit, besides having a number of new mechanical attachments for added comfort and safety in offshore cruising. Her construction will be rugged, yet reasonably light, with planking of double white cedar.

The interior arrangement shows a fine stateroom aft, with double bed on one side and upper and lower berths opposite. There is a connecting toilet room, with shower, and bureau, lockers, etc. Forward is a big, open cabin, or lounge, with upper and lower berths to port and folding berth opposite, and second toilet room adjoining. A well-equipped galley and crew's quarters are found forward. Besides the deckhouse, there are both forward and after cockpits.



Outboard profile and cabin plan of the 58-foot a.c.f. express cruiser being built for Firmin V. Desloge

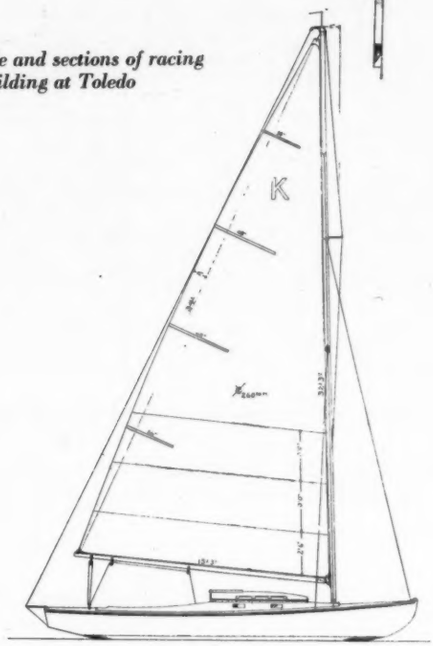




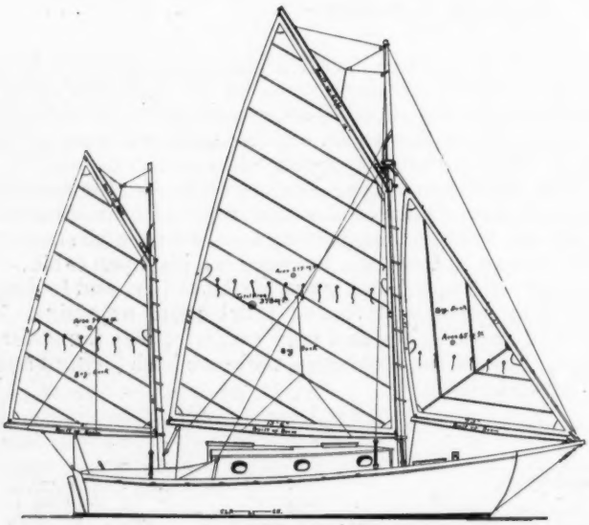
Inboard profile and sections of racing cat building at Toledo

A Lake Erie Racing Cat

THIS trim cat boat, now building by her designers, R. A. & R. W. Luedtke of Toledo, Ohio, will be a challenger for the coveted Richardson Memorial Cup now held at Detroit. She is 22′ o.a., 16′ w.l., 7′ beam, and 3′ draft. Outside ballast is 600 pounds, and sail area 260 sq. ft. She differs from present boats of the class in being built to the minimum beam limit and in having the centerboard entirely below the keel. Construction is high grade, with white oak keel and framing, redwood planking, mahogany and Peruvian cedar cabin trunk, spruce spars, Egyptian cotton sails, bronze hardware throughout and aeroplane wire rigging. The permanent backstay is a new feature in this class.



Sail plan of Luedtke cat boat

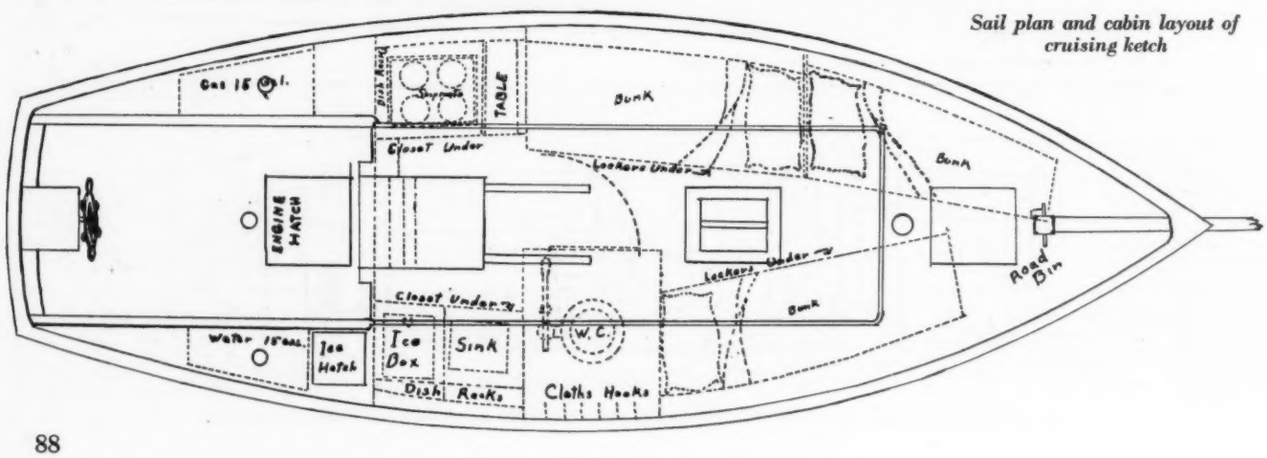


A New Stock Auxiliary

THE ketch herewith was designed by her builder, Hermann A. Arendtz of Neponset, Mass., to give the man of moderate means a boat within his reach. She is 26′ long, 9′ beam, 3′ 10″ draft, and spreads 378 sq. ft. of sail. The motor is set off center. The boat is framed with oak and planked with hard pine, with t. and g. fir deck, canvas covered. Fastenings are of bronze and keel of iron. Headroom in cabin is 5′ 6″ and joinerwork is of fir, mahogany trimmed

The galley is aft, with stove to port and icebox and sink to starboard. Next forward, on the starboard side, is a toilet, with a berth forward of it. On the port side of the cabin are two berths. The cockpit is watertight and self-bailing and extends aft to the transom.

Sail plan and cabin layout of cruising ketch



The latest Chris-Craft, a 15½-foot utility boat. Driven by a 32 h.p. engine, she travels at 25 m.p.h.

Of Interest to the Skipper

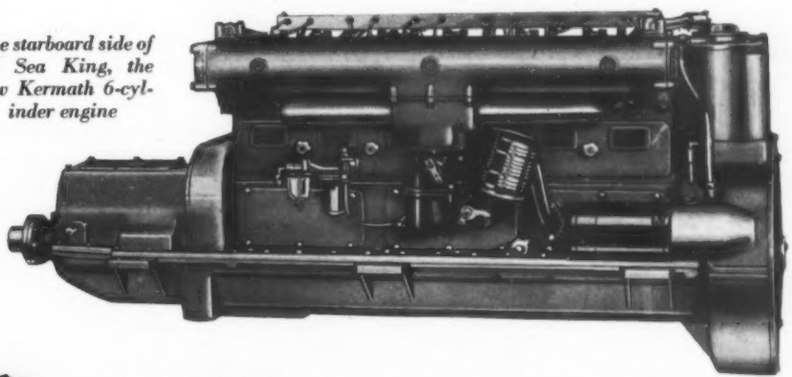
The Sea King, a New Kermath

RELIABILITY and performance of Kermath engines have been so well known for many years that yachtsmen, builders and engine dealers alike will hail the announcement of a new motor from that factory. In the last few years the Sea Captain L-head 65-100 h.p. engine has been a favorite with discriminating owners. Now Kermath introduces a new and larger motor which embodies speed, quiet operation, increased power output and dependability.

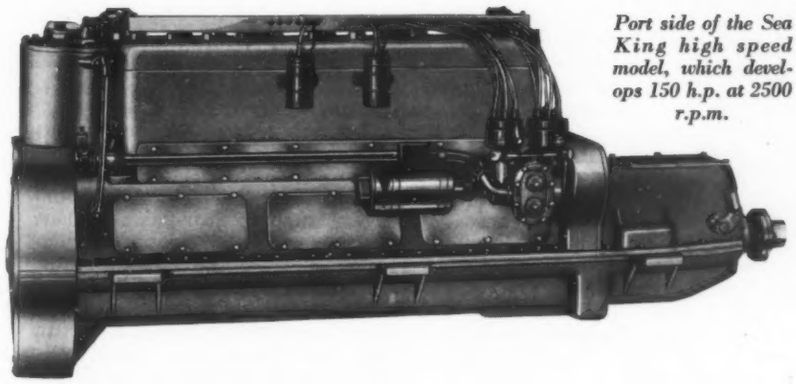
This new marine engine, known as the Sea King, is a 120 h.p. medium duty and 150 h.p. high speed, 6-cylinder L-head motor, ideally adapted to both cruiser and runabout. It is modern in every detail of design and construction, but retains the features which time and experience have demonstrated essential to prolonged service. The power output has been kept within reasonable limits to insure economy, efficiency and adaptability to varied types and sizes of boats.

The specifications are impressive. Cylinders are of special chrome nickel iron, finish-bored and honed to size. Piston displacement is 520 cubic inches, with a bore of 4⅜" and a stroke of 5¾". Main bearings are of the interchangeable type, 2½" in diameter, while the seven bearing crankshaft is statically and dynamically balanced, machined all over and drilled for forced feed lubrication. Pistons are Lynite, accurately ground and fitted. Mechanical fuel pump is of the Kermath gear type, a double oil pump with external pressure regulator. Lubrication is forced feed with dry sump. Oil is changed quickly by draining the oil reservoir tank on top of the motor. Single distributor, double distributor, or magneto and single distributor ignition are all available. Two unit, 12-volt starter and generator system is used. The reverse gear is built for heavy duty marine work, a double clutch for go ahead transmitting the drive direct. The medium duty 120 h.p. model develops its power at 2,000 r.p.m.; the high speed 150 h.p. engine at 2,500 r.p.m.

Both models are identical in size, the major difference being in the use of an iron oil pan in the medium duty type, where light weight is not so essential, and a system of timing suited to low speeds. The high speed model has been developed with aluminum oil pan to save weight in runabout and speedboat installations and its timing is synchronized for higher engine speed. The motor shows clean cut design and appreciation of marine motor essentials, including flexibility for mounting. Outstanding points are complete accessibility; extra large hand hole plates on both sides of the crankcase; simple, sensible mounting of the accessories; the characteristic full force feed Kermath lubricating system, with efficient dry sump design and an oil reservoir, conveniently placed over the wheel housing, with its puncture-proof, self contained oil cooler, removable oversize oil strainers and filters and double oil pressure pump



The starboard side of the Sea King, the new Kermath 6-cylinder engine



Port side of the Sea King high speed model, which develops 150 h.p. at 2500 r.p.m.

A Scripps Model 202 marine engine developing 210 h.p. drives this runabout at a 43-mile pace

with its external pressure regulator to insure a steady flow of lubricating oil at all speeds.

A wide factor of safety in every major detail insures practically uninterrupted service. Crankshaft, reinforced crankcase, bearings, and reverse gear would do justice to a motor developing 250 h.p. The extra attention given to manifolding and carburetion insures the greatest economy of operation. A neat, compact, quiet, built-in reduction gear further enhances its scope of usefulness. The Sea King is available not only in opposite rotation but in symmetrical pairs for twin screw installation.

Both the Hacker Boat Co. and Howard Lyon of New York City are already specifying the new 150 h.p. Sea King high speed engine in new runabout designs which have been developed around this motor's specifications. The first deliveries of this new engine, now in production, will be made this month. Both models have been attractively priced to insure wide use in both cruisers and runabouts.

This new Kermath motor has been developed over the past year and a half but company officials awaited a definite improvement in business conditions before releasing it. In consequence, it heralds a decided pick-up in the marine field. Further announcements of new models will be made shortly.

\+ + +

New "Seacraft" Models

As a result of definite inquiries, the Co-Mac Seacraft Company of Arverne, L. I., is planning to add two new models to its present line of standardized cruisers.

One will be a 26-footer with moderate speed and with sleeping accommodations for four persons. She will be of the V-bottom model and of batten seam construction.

The other new boat is to be an 18-foot utility runabout, a round bilge boat designed for salt water conditions. Both craft are to be marketed at low prices.

Texaco Issues Cruising Charts

Three new index charts have just been published by the Texas Company for the use of yachtsmen. Each chart covers a section of the Atlantic between Eastport, Maine, and Key West, Florida. Drawn on the Mercator projection, they show the inside route to Florida, outside courses, the principal lighthouses and lightships, and the proper U. S. Coast and Geodetic Survey chart to use for each section of the coast. The familiar red star indicates each point along the route where Texaco marine products may be obtained. On the back of each index chart are the tide tables for the year for the principal ports in that section and also tidal constants for points about ten miles apart.

\+ + +

Smyth Joins Peirce & Kilburn

Major William Smyth, well known as a yacht builder to many yachtsmen along the North Atlantic coast, has joined the staff of Peirce and Kilburn, Inc., of Fairhaven, Mass.

Major Smyth has been a sailor ever since his early boyhood, much of which was spent in the fishing fleet on the North Irish coast. He received his technical training in the British Engineering Shops and after the war built and operated a fleet of fishing vessels. After coming to this country he was for some years marine superintendent of the New England Oil Co., operating tankers in both northern and southern waters, and then went into yacht building. He was at one time in the repairing and building business at Essington, Pa., and later, as manager of the Dauntless Shipyard at Essex, Conn., built a number of well-known yachts. Recently, he has been associated with the Minneford Yacht Yard at City Island.

In addition to his activities in building and overhauling, Major Smyth is well known as a yachtsman.

a.c.f. Owners Repeat

L. B. Chapman, manager of the marine division of American Car and Foundry Company, reports several interesting sales of a.c.f. cruisers to yachtsmen who have already owned boats built by this company. For example, J. B. Yates, of New York City, who had previously been the owner of an a.c.f. 40 ft. double cabin cruiser, has just purchased an a.c.f. 54 ft. twin screw motor yacht powered with a pair of 100 h.p. Hall-Scott engines. The new boat has been named *Wekenda* and will be in service on Long Island Sound.

Thomas F. Manville, Jr., who likewise had owned an a.c.f. boat, has bought an a.c.f. 38 ft. express cruiser driven by a pair of 175 h.p. engines, for Sound cruising. She has been named *No.*

On a recent visit to New York, J. B. Wathen, Jr., of Louisville, Kentucky, purchased an a.c.f. 68 ft. motor yacht. He had ordered a 54 ft. a.c.f. cruiser but decided on the larger yacht after a careful inspection. She is powered with a pair of 175 h.p. Hall-Scott engines.

Another sale of an a.c.f. boat was that to G. S. Young, of Brooklyn, N. Y., who is now the owner of an a.c.f. 30 ft. day cruiser driven by a Chrysler Crown direct drive engine. Her home port will be Fisher's Island, N. Y.

\+ + +

Spar-Paint, A New Smith Finish

Due to the growing popularity of painted spars and the increasing demand for a paint to meet such requirements, Edward W. Smith & Co., makers of the well-known Cup Defender finishes, have developed Spar-Paint, a new finish for this purpose. Smith's Spar-Paint is made in the two most popular colors, tan and buff.

In finish, these paints have a beautiful, enamel-like gloss, of a highly elastic nature, permitting them to yield to the stresses and strains to which such spars as masts and booms are frequently subjected without chipping or cracking.

Record Fleet Sails at San Pedro

(*Continued from page 53*)

pers, eased her from zephyr to zephyr like a veteran. *Marin's* point total was 10½, two to the good over *Angelita*, while Pierpont Davis' *Santa Maria* totaled five points.

Thirteen Star sloops turned out this season and after four spirited windward scraps by the seven top-notchers, Hook Beardslee's Balboa ghost *Moira* and Art Macrate's *Zoa*, from Long Beach, were at the top with 40¼ points apiece. (In the sail-off *Moira* defeated *Zoa* by one minute.) Bobby Ziegler, diminutive schoolboy skipper, won third place with his *Win Blu*, also of the Long Beach fleet. Ziegler's team mate, Frank Lippman, was fourth in *Pat Riot*, with 37 points, 2¼ behind *Win Blu*, and two markers ahead of Glenn Waterhouse and his international champion *Three Star Too*, from San Francisco Bay. Dorrance McClure actually sailed Frieda Brown's *Tom Robin* into second honors, but was eliminated when he fouled *Pat Riot* at the fag end of the final event.

Efforts to revive the "R" Class brought out only two veterans, Mrs. Rhoda Adamson's *Pirate* and Sylsby Spaulding's *Debra*, sailed by Ben Weston. Ted Geary, *Pirate's* designer, won all four races with his refurbished creation. The duel in the Pacific Coast one-design sloop class was closer, Billy Lyon and his *Nina* totaling 6½ points to nose out Walton Hubbard's *Tempe V* by a single point.

Another one-design sloop class was also introduced this year, the husky Common Sense 28-footers, designed and built by the veteran Matt Walsh, who won the trophy with his *CS-3*. Ernest Schoedsack took second place with *Jamboree*, third honors going to Claire Neuner with *CS-1*, and last place to Keller's *CS-2*.

Tom Danckwortt's lofty-sparred *Aegir*, imported 60-square-meter cruiser, was the only one of the handicap sloops that found the light going to her liking and, well-sailed, she won with ease, threatened only by John Frederick's Bird Class champion *Pipit*. They were followed, in order, by George Coller's "S" boat *Wimpy II*, Arthur Stewart's new cutter *Tehani*, and Billy Meyers' *Jezebel*.

The cruising class trophy was taken by Alvin Frank's venerable jib-headed ketch *Ahmeek*, skippered by her former owner, Henry Warren. *Ahmeek*, at her glory in fitful zephyrs, ran away from the fleet on both of the two days the cruising classes were out. Hugh Angelman's new ketch *Neptune* won second honors in the fleet of nine entries, with Burton Baldwin's *Trade Wind* third, and Douglas Radford's yawl *Sindbad* fourth.

A veritable swarm of tiny one-design sloops raced each day over the protected course off Cabrillo Beach, presenting a colorful panorama as their many-hued sails dipped about the blue expanse of the bay. Victors in those classes follow: Snipes, *Querida*, Merle Davis; Olympic monotypes, *Eel*, Fred Rice; Rainbows, *Bobby-Lou*, Barbara Shutt.

The Alamitos Bay skimmer squadron was again on hand over the outside course, their races ending in a three-way tie (which will not be sailed off), between George Hart's *Idona*, Sidney Exley's *Dawn* and George Curran's *Inspiration*.

The regatta this year was sailed over a new triangular course, established outside the new federal breakwater, midway between Point Fermin and Long Beach, which left the events entirely free of the factor of local conditions, save on the one day the committee sent the fleet over a long windward-and-leeward course to Point Fermin and return.

Ship
OVINGTON CHINA!

AND ship Ovington Crystal before your trim yacht slides down the ways! For Ovington China and Crystal are the finest you can place before your guests. And their cost is low indeed!

A seagoing china service for 6 people costs about $45. And crystal, even less!

OVINGTON'S
437 Fifth Avenue, New York

YOU LOOK YOUR BEST IN A POLO COAT

And "best" demands this double-breasted raglan model, made entirely of pure Camel's Hair, cleverly tailored in London, and available here at a price unbelievably low because of our tariff advantage.

H.A.&E. SMITH LTD.
BERMUDA

The Sensation of the Year!!

THE NEW MATTHEWS "SAILER"

Designed by MATTHEWS and WM. ATKIN, N.A.

A wholesome single-handed 25-footer of the famous "Sea Bird" type

Acclaimed the country over as the smartest singlehander in years—and a stock boat, built in large scale production and priced away below anything of its kind ever built before. Its accommodations surpass anything ever before seen in this size boat — a revelation in comfort and a whale of a value! Sleeps four and has enclosed toilet room — locker — sink — stove — icebox — locker space galore — and 5′ 8½″ of headroom.

Send for literature today — you will be amazed when you get the details!

THE FAMOUS FLEET OF MATTHEWS "38's"-"46's"-"50's"

The smart "38" Sport Cruiser at top speed

Select your cruiser from this distinguished fleet of 18 distinctive models — one for every cruising requirement — the huskiest and smartest series ever developed in Matthews 44-year history. From the "38" Utility Model to the sleek-looking luxurious 50-footers, you will be more than satisfied you chose a Matthews. Better order early to insure delivery this season.

Send for your copy of "Matthews Cruisers for 1934"

"38" STOCK CRUISERS MATTHEWS 46 —since 1890—

THE MATTHEWS CO.
314 BAY SIDE
PORT CLINTON, OHIO

"Wherever you cruise . . . you'll find a Matthews"

Point summaries follow:

EIGHT-METRE CLASS
Marin, Lampton, 10½; *Angelita*, Churchill, 8½; *Santa Maria*, Davis, 5.

SIX-METRE CLASS
Mystery, Bartholomae, 24¼; *Caprice*, Lee, 22½; *Lanai*, Slater, 20; *Gallant*, Conant, 19¼; *Clio*, Simmons, 11; *Synnove*, Rogers, 11; *Harpoon*, Adams, 5.

CLASS R
Pirate, Geary, 10; *Debra*, Weston, 3.

STAR CLASS
Zoa, Macrate, 40¼; *Moira*, Beardslee, 40¼ (won sail-off); *Win Blu*, Ziegler, 39¼; *Pat Riot*, Lippman, 37; *Three Star Too*, Waterhouse, 35; *Majella II*, Loder, 34; *Barbara J*, Lehman, 31¼; *Tom Robin*, McClure, 29; *Vega II*, Dickey, 24; *Movie Star I*, Hickman, 21; *Alibi*, Williams, 16; *Maia*, Pierette, 10; *Morning Star*, Patricio, 5.

PACIFIC COAST CLASS
Nina, Lyon, 6½; *Tempe V*, Hubbard, 5½.

COMMON SENSE CLASS
CS-3, Walsh, 11¼; *Jamboree*, Schoedsack, 8¼; *CS-1*, Neuner, 6; *CS-2*, Keller, 5.

HANDICAP SLOOPS
Aegir, Danckwortt, 10½; *Pipit*, Fredericks, 8; *Wimpy II*, Coller, 6; *Tehani*, Stewart, 2; *Jezebel*, Meyers, 1.

SCHOONERS, YAWLS, KETCHES
Ahmeek, Warren, 18½; *Neptune*, Angelman, 16; *Trade Wind*, Baldwin, 14; *Sindbad*, Radford, 9.

\+ + +

A Single-Handed Atlantic Passage

(*Continued from page 62*)

hours in succession; one thunderstorm after another and each with a furious wind. It is senseless to set all the canvas and it is a nuisance to be always obliged to take it in for safety.

8th August. A waterspout to the East. It seems to be worse here than in the English Channel. The trade wind is dead. Winds from the S.W.

Squalls, squalls by the dozen all around, heavy and vertical like the pillars of an immense building. Strange. Very dangerous. I don't like this climate at all. I prefer the long spells of dull weather we get at home.

10th August. Running along under smaller forestaysail. 8 P.M. Obliged to take it in.

11th August. Dirty weather. Got the sea anchor ready.

12th August. It seems I am not to have a single day of decent weather. But that doesn't matter; everything holds properly. I am in no anxiety with my "ridiculously" strong fittings.

15th August. Blowing from the N.N.E., dead ahead, and no mistake. Barometer rising too high. This gets me thinking, but I can't complain about the *actual* weather.

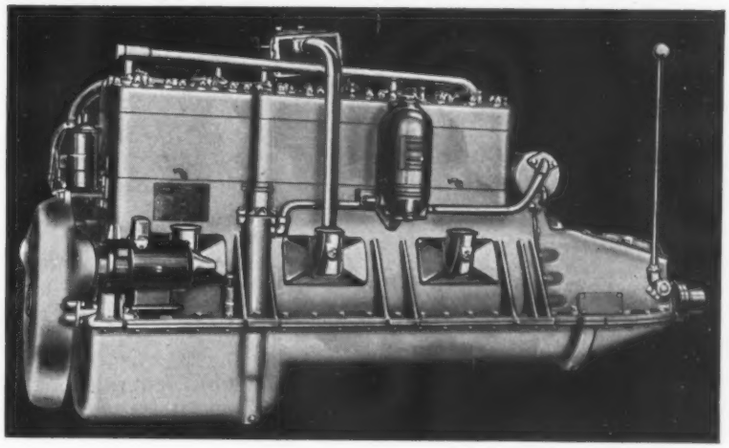
16th August. Plenty of flotsam and jetsam. Sounded at noon: 55 meters, sandy bottom. Good. 7:00 P.M. 29 meters, sand. Good. (Really I am rather surprised to find just the soundings I was looking for.)

I believe there is a hurricane coming from far away. Barometer too high, horizon too clear, etc. Cirrus clouds at midday. This confirms my opinion. Cirrus do not clear at sunset. Don't like it. Barometer jumped down 4 points. Horrors!

Started the Diesel. Decided to try to get shelter before it starts blowing. Discretion is the better part of valor.

Sighted lights of Atlantic City at 7:45 P.M.

17th August. Lightship *Barnegat* at 1:00 A.M. Heavy traffic there. Lighted searchlight. They all keep away. No fear of anybody coming across my way. Seems to scare them. Saw land at dawn (New Jersey). Violent squall from the W. That's the beginning of it! Took in two reefs. No time to lose now!



MODEL 202—*High Speed. 6 cylinders, 210 horsepower at 2300 revolutions per minute. Proving superiority of design, perfection of construction, and unequalled dependability of performance so noticeable in all SCRIPPS engines regardless of model, power rating, or requirements of service.*

SCRIPPS Owners prove SCRIPPS Claims

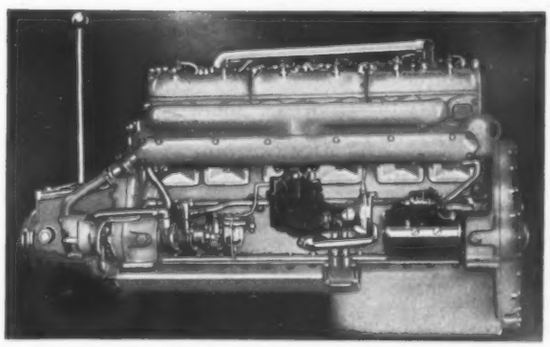
Mr. James Rowland Lowe of Grand Rapids, Mich., writes: *"Your motor is probably too good for your own benefit, as resales must be at infrequent intervals, due to its long life."* **Mr. R. White** of Kansas City, Mo., says *"This motor has given satisfactory service and it looks as if it is good for several years more."* **Mr. Russell Robb** of Boston, Mass., states: *"My original SCRIPPS motor is still installed. I could not ask for a better motor—absolutely reliable, no repairs, economical. It has saved me in many situations. Its future life seems unlimited."* Thousands of other owners testify that SCRIPPS *Last* and faithfully *Serve* while they last. . . . During all those years of service there is general all 'round satisfaction. **Mr. C. C. Coolbaugh** of Gloucester, N. J., has this to say about SCRIPPS: *"Personally I have had the same satisfaction with all the different motors I have had of yours in the various boats I have owned."* **Mr. F. B. Drake,** Berkeley, Cal., has a SCRIPPS that was installed in 1927, he writes: *"This motor is still installed and is, at the present time, giving very fine service."* That is the identical kind of service you want—the kind you will receive from a SCRIPPS. . . . **Dr. Halsey Beach Loder** of Boston, Mass., says of his SCRIPPS: *"We can push the yawl "SOU'WESTER" something over an honest 8½ knots with her and can get 6½ to 7 knots at a very comfortable cruising speed with a gasoline consumption of less than two gallons an hour."* **Mr. B. D. Barker,** another Boston boat owner testifies: *"When I bought my Seawanhaka schooner,* FLYTIE, *in 1930 a F-4 motor was installed, but I understand that it had been installed in 1929 as a replacement of the original motor. During the four years I have used the boat the motor has proved to be thoroughly dependable and satisfactory."* SCRIPPS are designed and constructed to be *"thoroughly dependable."* Your next power plant should be a SCRIPPS.

The SCRIPPS line of strictly marine engines for high speed and medium speed includes 32 models classified in six series according to power ratings—4, 6, and 12 cylinders—25 to 300 horsepower in single installations, and up to 600 horsepower in twin installations. Both in direct drive and with reduction gears.

What others say about SCRIPPS Marine Engines

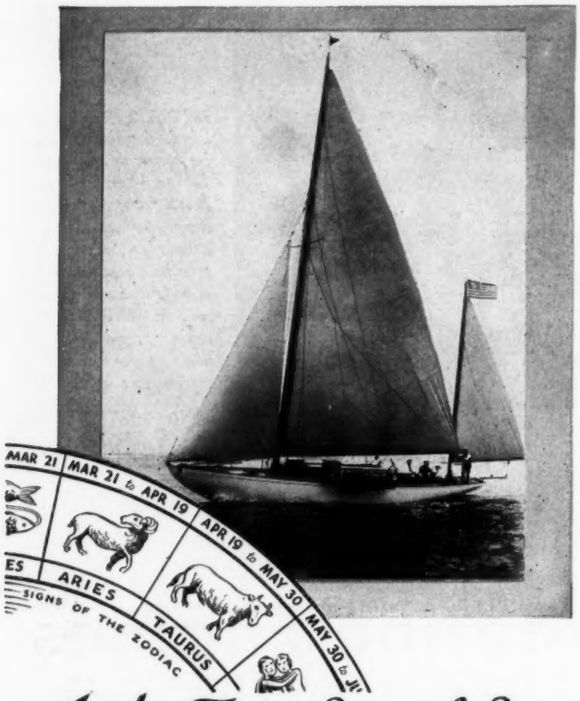
That constantly dependable performance, that long life, that reliability and extra low cost of both operation and maintenance of which owners so proudly and willingly testify, are not accidental to only an occasional engine, but are found, instead, in every SCRIPPS . . . You are assured the same mechanical perfection, the same uniform, adequate operation, the same year-after-year satisfaction if the engine selected for your new boat or replacement engine for your present boat is a SCRIPPS . . . Here is masterful designing, years of cumulative experience, applied knowledge, and pride of workmanship . . . Here, too, is a proved SCRIPPS, tested, run at factory until thoroughly broken in, so that it will produce its fully rated horsepower and required revolutions from the time installation is completed and every hour thereafter; an engine that will fully perform your power demands regardless of how exacting those demands may be . . . That is why you should become thoroughly acquainted with SCRIPPS—why you should investigate and then install a SCRIPPS. Remember the price is so reasonable that if you can afford a good hull you can well afford to power it with a good SCRIPPS.

WRITE today and learn the moderate cost of a SCRIPPS power plant for original equipment or for replacement installation. Give essential details—length, type of craft, speed desired, or horsepower needed. We will send you illustrated literature fully describing the model we will recommend as best suited to your individual requirements.



MODEL 154—*MEDIUM SPEED. 6 cylinders, 110 horsepower at 1800 revolutions per minute. This cruiser type engine, in comparison with Model 202, exemplifies that in the 32 models there is an individually designed SCRIPPS of superb workmanship to adequately power, in single or twin installations, every type of craft from the smallest to the largest boat.*

SCRIPPS MOTOR COMPANY, 5833 LINCOLN AVE., DETROIT, MICHIGAN



At the First Sign of Spring

Thoughts of Yachtsmen turn to conditioning their craft for another joyous season . . . . .

Don't overlook the first and most important thing —if you want a really care-free season. Provide comprehensive yacht insurance to protect yourself against loss or damage to your craft and against your liability in connection with its operation.

An Atlantic Mutual policy gives you the broadest coverage available, backed by unexcelled security —a non-assessable policy—and on a mutual basis. Present cash dividend rate is 15% of premium.

Chartered over 90 years ago, the Atlantic Mutual is today the world's largest mutual marine and transportation Insurance Company and has an enviable record for prompt and equitable settlement.

ATLANTIC MUTUAL INSURANCE COMPANY

Home Office

ATLANTIC BLDG. 49-51 WALL ST. NEW YORK

33 Broad Street, BOSTON, MASS.
175 W. Jackson Blvd., CHICAGO, ILL.
401 Walnut Street, PHILADELPHIA, PA.
1370 Ontario Street, CLEVELAND, OHIO
1427 Eye Street, N.W., WASHINGTON, D. C.
Canton House, South and Water Sts., BALTIMORE, MD.

Use Coupon

ATLANTIC MUTUAL INSURANCE CO. Y-4-34
49-51 Wall Street, New York

Please send me a copy of your yacht booklet "Facts" which gives detailed information regarding yacht insurance on your mutual plan. I understand it is free.

NAME _____

ADDRESS _____

CITY _____ STATE _____

As the Atlantic Mutual recognizes brokers, it will be in order to send this coupon through your broker.

Wind shifted to the N.E. Very annoying. Too near to to the land. Quite calm. What is going to happen now? *

\+ + +

From five in the morning until noon, I hugged the coast of New Jersey and Sandy Hook. There were lots of fishing craft, full of anglers, who looked with curiosity at the French ensign at the peak and the quarantine flag at half mast. One of them hailed me and enquired where I came from. When I replied that I had come from the English Channel I was greeted with shouts of sardonic laughter. I made straight for the fairway and started to sail between the buoys. Huge ocean liners came looming out of the mist, swinging 'round at fifteen knots and heeling over as they did so. I was afraid of their terrific wash but found it long and not troublesome.

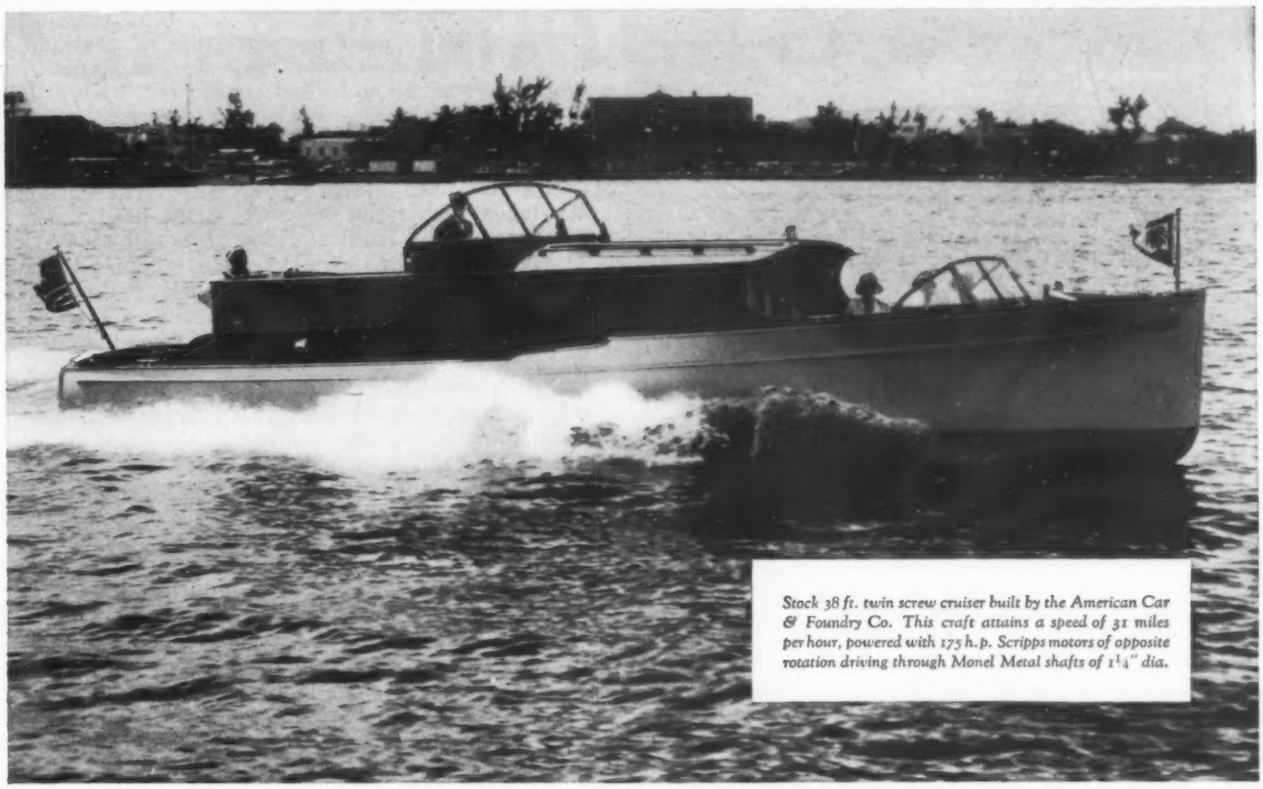
Luckily, I was able to take advantage of the tide, and in less than three hours I had done the whole twenty miles of the channel, passed the Narrows, and arrived in quarantine. I did not dare drop anchor because I felt incapable of heaving in the chain all by myself and getting under way in the middle of the stream amid the traffic. I kept under way between the ships and soon the tug belonging to the medical service came alongside and instructed me to enter a little basin constructed of pile-work, which opened close by. As the entrance was narrow, and the current shot across it, I ran in quickly and then found that the inside was too small to come round head to wind. Fortunately, I was able to wind the boat by letting go the anchor in double quick time and hanging on. *Winibelle* swung around neatly by the side of a little steamer. The trip was finished.

It was the seventeenth of August.

There was a crowd of onlookers in summer clothing. The moment I first walked on the landing stage, a little shaky and still in a sailor's suit and sea boots, I was astonished to find that the people there knew all about my trip; the doctor, the Custom House official and the Immigration Officer all received me smiling amiably. In

** On the evening of the 18th there was a hurricane raging on the coast of New Jersey and Long Island. The New York papers reported four boats and many lives lost.*

Journey's end. "Winibelle II" alongside the "Ile de France"



Stock 38 ft. twin screw cruiser built by the American Car & Foundry Co. This craft attains a speed of 31 miles per hour, powered with 175 h.p. Scripps motors of opposite rotation driving through Monel Metal shafts of 1¼" dia.

Pace Setter of A.C.F. Drives at 31 m.p.h. through

Monel Metal Propeller Shafts!

THE fastest, highest-powered cruiser of the A.C.F. line cuts through the water at 31 m.p.h.

Its Scripps motors give the propellers their 175 h.p. thrusts through 1¼" shafts of Monel Metal.

You may be sure that A.C.F. did some careful selecting before they decided on Monel Metal.

For, with such power and speed, the shafts must keep their true straightness against shocks that would 'spring' ordinary shafts beyond hope.

A.C.F. chose Monel Metal because it has the *strength* and *rigidity* of steel yet is absolutely *rust-proof*. And its stubborn resistance to corrosion makes it impervious to sea water.

INCONEL

"Ageless" Screen Cloth

The American Car & Foundry Co. recommends and uses Inconel screen cloth on its boats. This rust-proof screening for airports and port-holes resists the corrosion of salt-spray and does not streak. Being *stronger* than steel, it withstands shocks and abuse, and lasts indefinitely.

INCONEL

Smoother, more economical operation

In addition, Monel Metal propeller shafts operate with less vibration, less power consumption less wear on packing and bearings and less danger of 'seizing.' For their dense, cold-drawn structure 'polishes-in' by use to a friction-free surface as smooth as glass.

Because of these qualities smart boat owners are specifying Monel Metal propeller shafts, not only for new craft but for replacements as well. They are also demanding Monel Metal propellers, hull fastenings, galley equipment and other accessories.

Let us send you complete information about Monel Metal and tell you how you can obtain marine equipment of this enduring, sea-resisting Nickel alloy. Write today.

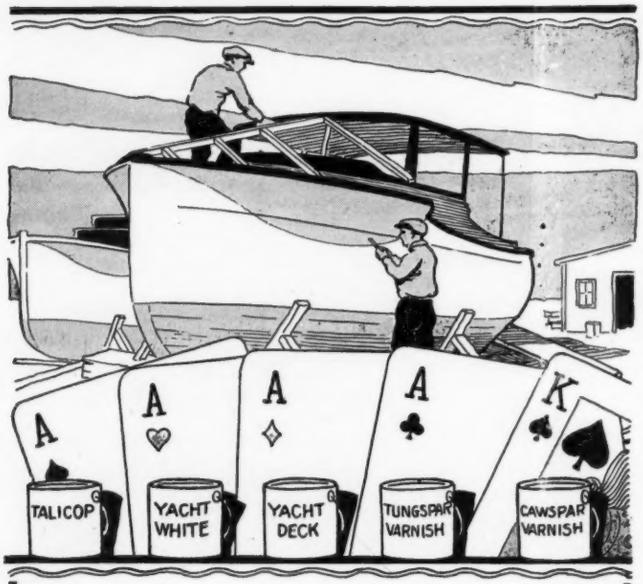
•

The International Nickel Company, Inc.
67 Wall Street, New York, N. Y.

MONEL METAL

Monel Metal is a registered trademark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.

NRA



A New Deal for Your Boat

If you are not yet one of the many thousands of enthusiastic Woolsey Users, why not give your boat a new deal this season — Woolsey-ize it from stem to stern and from mast to keel. Then rest assured that you will get a maximum of paint service.

There are no finer or more adaptable products available than those in the Woolsey line — a product for every part of every boat — large or small:

"Tali-cop" the guaranteed Copper Bottom Paint in Red, Brown and a beautiful Green. Keeps bottoms perfectly clear of barnacles and growths — protects absolutely against worm destruction and looks beautiful always.

"Woolsey's" Yacht White — a superior topside finish — durable — with the whiteness of a swan. In gloss, semi-gloss and flat.

"Woolsey's" Yacht Deck, a new deck finish — unsurpassed for all-round utility, finish and beauty.

"Tungspar" Varnish, the "aristocrat" of pale spar varnishes — *will not turn white.*

"Cawspar" Varnish, the king of Bakelite Resin Varnishes — *will not turn white.*

Also — Hard Finish Bottom Paints, Deck Enamels, Engine and Machinery Enamels, Interior Enamels, Seam Paints and Compositions, etc., etc.

And remember — no Woolsey Product is ever offered for practical use until it has been laboratory formulated and performance proved. That is why every Woolsey Marine Paint, Enamel, Varnish or other Product proves so adaptable and satisfactory for its intended use.

Name and address of your nearest "Woolsey" Dealer on request

This Valuable Paint Handbook

Twelve cents in stamps will bring you this interesting and valuable book on boat painting. Just chock full of hints and advice to help you do a better job.

WOOLSEY'S

C. A. Woolsey Paint and Color Co.

Est. 1853

Jersey City, N. J.

Miami *Tampa* *Houston* *San Francisco*

five minutes the ship's papers had been examined, a cupboard sealed, and the certificate of pratique delivered. An old gentleman came up and spoke to me about Slocum, whom he had known well. I admit I was amazed. Shortly afterwards, the Assistant Commissioner of the French Line arrived in a car; he offered me a launch to tow me up to the Company's pier. But I decided to power up there by myself, and at five o'clock I weighed anchor and sailed out again, heading for the entrance of the Hudson River. I began to see Miss Liberty, and then, looming out of the fog, the imposing mass of the city buildings, which I had never seen before.

I was rather excited, as I had been when I sighted the Antilles. In the midst of the indescribable traffic, I rushed forward to get everything shipshape, and then aft again to resume steering. I sang everything that came into my head, and ceremoniously raised my hat to the captains of the tugboats, to Miss Liberty, and to all in sight. *Winibelle* cut right across the sterns of lighters, and acrobatically close to the ends of piers, much to the amusement of the good people. I was mad with delight.

About seven o'clock I saw the funnels of the *Leviathan* soaring up above the roofs and, alongside, the tops of the funnels of the *Ile de France.* A hundred sailors from the *Ile de France* were watching from the end of Pier 57. I came alongside the float quietly, neatly passed a hawser forward, another aft to the onlookers, belayed, not saying a word. . . . All well. . . . Nothing to report. . . . Have a cigarette . . . ?

\+ + +

I had been one hundred days on my cruise, sixty-five of them offshore.

THE END

\+ + +

"Barging In"

(*Continued from page 58*)

outboard rudder, she was boxed off for the finish line. She crossed with a margin of thirty seconds over *Sara,* a big black-and-gray bowsprit barge with a spanking big new white jib, champion of the Thames and Medway in her class for 1933; but *Veronica* led her own class by a minute and a half over *Fortis* of Rochester, with a black and yellow flag. Six tide-swung barges finished here off Gravesend in ninety seconds, with the committee guns going off as fast as the timers could call the names — but, again, there were no fouls. It had been a red-hot day for the crews, with spinnakers to jibe and mainsails to shift over dozens of times in the slow last five-mile crawl, while the Thames porpoises gambolled about in the river and mocked them while they sweated. So adjournment to the Goose and Gander pub was in order as soon as the anchors were down.

What completely shot the world conference was the fact that the Medway races followed those on the Thames within forty-eight hours. The Medway, for such as know no better, flows into the Thames estuary just below where the Thames races turned; and it is easily — all too easily — reached from London where world conferences drone.

Here conditions were entirely different. The spell of heat had bred a nor'wester, and the wind came away fresh, with flashes of sun alternating between cloudy squalls. Much the same lot of barges raced, for it is a sorrowful fact that where barges used to be numbered by thousands they have fallen to hundreds, and those that race could be told on the fingers of three hands, if you had that many.

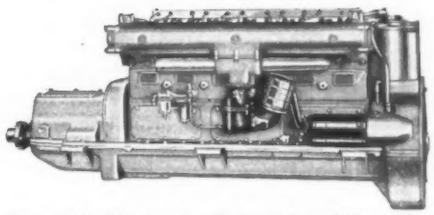
KERMATH LEADS the RECOVERY PARADE

WITH A LINE OF NEW ENGINES DILIGENTLY DEVELOPED DURING THE PAST 2 YEARS

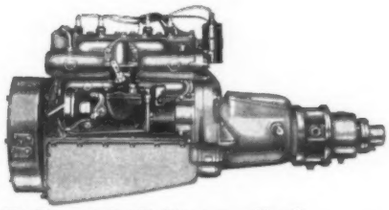
Now Kermath makes an already extensive line more complete than ever. For the past two years Kermath's extensive engineering and research facilities have been devoted to the development of a strikingly new series of marine engines which combine new performance—new efficiency—new power—and new economy with some amazingly low prices. Today finds Kermath leading the recovery parade with a group of engines which makes its already extensive line more complete than ever!

Ranging in size from the husky two-cylinder 8-10 horsepower motor for small launches and fishing craft to the sleek 450 horsepower V-12 which will drive a large runabout or fast cruiser at express train speeds, Kermath now provides the most complete series of power plants ever developed in the history of marine engine building—*at prices to match any boating budget.*

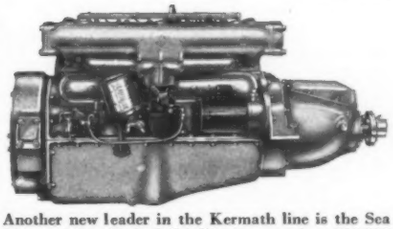
Whether you are building a new boat or refitting the old—specify a Kermath. You'll find it the most dependable and economical source of marine power you've ever had the opportunity to operate . . . and Kermath Marine Engines are available with built-in reduction gears and for single and twin-screw operation.



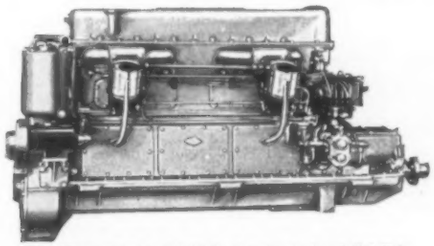
The new Sea King is a six-cylinder medium 120 h.p. and a 150 h.p. high-speed L-head marine motor with a displacement of 520 cubic inches—a new type cruiser and runabout model.



The Kermath Sea Bird is a peppy "four" which offers a new source of swift, smooth power—a low-priced 45-50 h.p. engine also available with a trim built-in reduction gear as illustrated.



Another new leader in the Kermath line is the Sea Mate, a 383 cubic inch "six" having a rating of 90-110 horsepower. Especially adapted to cruiser and workboat use—with or without reduction gear—and for twin screw power.



The Kermath Sea Wolf dual valve-in-head "six" is considered by boat builders and owners one of the greatest runabout, commuter and cruiser motors ever built. New refinements, impressive motor specifications make this new 225 h.p. model the last word in marine serviceability and power.

● NEW BOAT BUYERS' GUIDE

This valuable book, profusely illustrated, describing the latest boats and boat designs of the country's leading boat builders together with the new Kermath Engine Catalog will be mailed free on request.

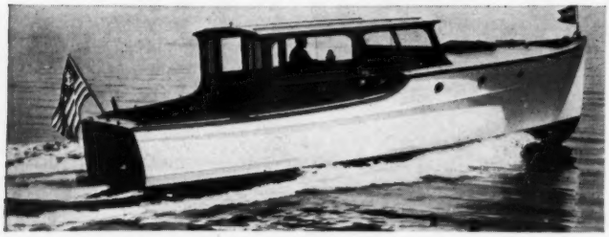
KERMATH MFG. COMPANY
5893 Commonwealth Avenue - Detroit, Michigan

New York Fifth Ave. at 15th St.
Toronto, Ont. 619 King St., W.
Miami 234 S.W. Sixth St.
Boston 1043 Commonwealth Ave.

KERMATH
A KERMATH ALWAYS RUNS

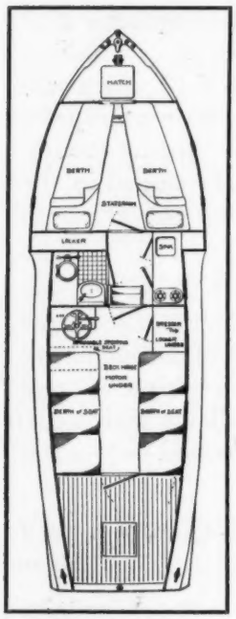
8 TO 450 HORSEPOWER • TWO TO TWELVE CYLINDERS

BUILT FOR THE SEA BY MEN OF THE SEA



IT COSTS LESS TO BUILD BETTER BOATS IN MAINE

In Maine the winds blow hard and seas are rough and a boat is only as good as the stuff that's in it.



Plan of 30-footer

★

SEAWORTHY

SMART

COMFORTABLY LAID OUT

EASY TO OPERATE

LOW PRICED

★

30′ MARBLEHEAD JUNIOR $3395
TWIN STATEROOM

35′ MARBLEHEAD . . . $5250
ENCLOSED BRIDGE DECK

Delivered New York City

WRITE FOR LITERATURE

MARBLEHEAD BOAT CORPORATION
Biddeford, Maine

MARBLEHEAD
CRUISERS

Are the STANDARD of COMPARISON

This time the blunt bows and broad quarters made a tremendous fuss through the sudsy river water and the barges' wakes looked like those of destroyers in a hurry. *Phoenician* got away with the gun in the sea-barge class, leaving *Will Everard* and *Greenhithe* in irons. *Veronica* again came out like a steamboat in the staysail class, and the big white-jibbed *Sara* led the bowspritters over after some delay. *Will Everard* walked right over *Greenhithe,* coming up on the weather quarter, blanketing her, spearing her bowsprit through her mainsail, and splitting it to the headrope. The two big iron kettles came slowly head to wind, with sails flogging and broken gear flailing. No one was hurt, but the respective skippers suffered apoplectic qualms through not being able to do verbal justice to the occasion. They had been reading world conference speeches and felt themselves hopelessly inadequate. *Phoenician, Redoubtable,* and *Northdown* dashed on, and *Phoenician* won by a whopping margin. It was in the windward work that she did it.

Veronica came through again in the staysail class, downing her old competitor *Fortis* by ten minutes. She is a wonderful barge, *Veronica;* Thames champion in 1906, 1907, 1908 and again in 1933; Medway champion in 1908, and now again, twenty-five years later. These barges appear to live forever. One built in 1803 came near winning the Medway race four years ago, and there are two others a hundred years old in service. But no barges have been built since 1930.

Tail-enders in the Medway race this year caught it hot and heavy crossing the Warp. *Queen* carried away her bobstay and lost her topsail and jib; *Lord Nelson's* jib halliards parted and the sail went under the bows; *Sara* beat both *Lord Nelson* and *Nelson* simple in this bowsprit class. Most of them finished with topsails hauled down and some with mainsails brailed. It was a wonderful race to watch, and not knowing the kinks of the tide in the Thames and Medway, a greenhorn from afar again could not tell how much was luck, how much speed, how much seamanship, and how much pilotage. Even so, my hat is off to the Thames barge master, though he steers by the leadline instead of the compass; especially after seeing one dock a barge with a twenty-foot deckload of baled hay with a head tide above Greenwich where the wind and the river traffic gave a good imitation of Hell Gate on a busy morning!

\+ + +

A Wet Race

(*Continued from page 67*)

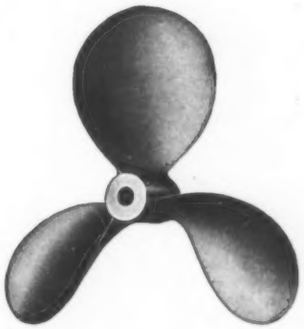
better weather of it and stopped bailing the cockpit. A try at the bilge pump showed that we had taken but little water into the hull. Frequent shower baths in the main cabin indicated, however, that the skylight was not above reproach. We slept that night in oilers.

Throughout the moon-patched and windy night, no major event occurred, except that after two or three short hitches we weathered the light on Great Isaac Cay and the rocks north of it, and at one o'clock settled down to the serious business of plugging 65 miles dead to windward for Great Stirrup Cay. In the interests of publicity, we were supposed to report to a control boat stationed off Great Isaac, she in turn being supposed to radio to a palpitant Florida the progress of the race. We failed to report, as we failed to distinguish the control vessel. We learned later that she had stationed herself cosily in the lee of the cay, and I marked it down as the first of many similar evidences of good judgment on the skipper's part that he did not nose about among the shoals of Great Isaac to look for her. His thoroughly seamanlike behavior led, however, to a rumor that *Musketeer* was missing and gave his wife in Nassau

VIBRATION

Vibration is all right in its place . . . but its place is not in the performance of your boat. It may be caused by a shaft out of line, but often it's the wrong wheel or a bent blade. In any event it is correctable. The local HYDE dealer will be glad to find the cause. The HYDE policy goes further than the making of the best possible propellers . . . it is to make boating a pleasure, free from trouble and annoyance.

HYDE WINDLASS COMPANY, Bath, Maine



HYDE

PROPELLERS

Dealers everywhere carry ample stocks

Send for this free booklet "Propeller Efficiency". It will tell you why* HYDE *Propellers often increase the speed of a boat and always get home safely.

and mine in New York several hours of anxiety. I'm afraid I don't like the idea of races run for the glorification of communities, or of control boats which lie in the lee of islands and shoot misleading information into the ether.

Early in the forenoon watch soundings were taken which placed us to windward of the Gingerbread Ground, described in the *Coast Pilot* as "about the most extensive and most fatal danger on Great Bahama Bank." All night the wind had blown a fresh to a strong breeze, and now an uglier look to eastward heralded its increase to gale force. By the time this moderate gale struck us we were on the starboard tack bound out from the bank for the deep and tumultuous water of the Northwest Providence Channel. Everything was jake, but damp. Spray swept us like an all-day rain. *Musketeer* staggered on, rolling her side out more than I had expected a boat of her design to do, but immersing little of her lee deck. It became apparent from the steam gauge, however, that while the increased wind was not knocking her alarmingly down, neither was it increasing her speed through the water.

Wherefore it came time to shorten down still more. Now, in a ketch, as tough old sea dogs know, all one has to do when it blows too hard is furl the mainsail and carry on day and night under jib (or jumbo) and jigger. That's the beauty of the ketch rig. The only trouble is you can't go places. We hoisted the mizzen, lowered the main, and looked at the steam gauge. It had dropped from seven knots to four and a half. As the gauge was optimistic, the skipper estimated that our actual speed had decreased from six knots to three and a half. For a moment we contemplated the relative serenity of cruising to nowhere in particular as opposed to ocean racing. Then, since we were in Providence Channel and since Providence looks after its own, divinity intervened again. The mizzen ripped from a tear under the uppermost batten inward to the luff and outward to the leach. Its remains were lowered and furled and we hove to under the jumbo while we tied two reefs in the mainsail. It had been decided for us that we would cease being a cruising ketch and resume the status of a racing cutter. We hoisted away without battens and sailed on, the little vessel faster with her two reefs than she had been under the whole mainsail. She now had a spoke or two of lee helm.

At noon our radio informed us that a fresh breeze was blowing. Another station a moment later mealy-mouthed the word that it was blowing briskly. As I do not find mention of the term "brisk" in Beaufort's scale, I take it that the local weather bureau's wind gauge had burned out another bearing at fifteen miles an hour. It was at about this time that we first estimated the wind's force to be forty miles and that the *Vamarie's* anemometer showed fifty. California, where art thou?

So it went through the afternoon and night, with occasional lulls in the wind and occasional subsidence of the heavy rollers as a port tack carried us into the partial lee of the distant Berry Islands. At ten, the quadruple flashing light on Great Stirrup Cay was sighted about fourteen miles to windward. At four, our good skipper having given it a decent berth of two miles (again beyond the range of the control boat supposedly stationed there), we brought the light abeam on a course for Nassau and entered upon the only easy leg of the windwardest, wettest short race I have ever sailed. For the first time we laid a compass course.

"Came the dawn." That's what the skipper said as we made out the Berry Islands a mile or so under our lee on a southeast course, Stirrup Cay fading into the murk on our starboard quarter. He said it unctuously, know-

. . . and in the galley he is grand, is Bon Ami Chick the Sailor . . .

For he scrubs up the sink, cleans up the utensils, shines up the stove—quickly makes everything so spick and span and ship-shape.

Bon Ami is a handy "mate" to keep aboard your boat all the time. For besides keeping the galley spotless, it cleans and freshens paint . . . puts a fine polish on brass . . . makes windshields and windows glistening clear.

You can get Bon Ami in either *Powder* or *Cake* form. Put a package on your boat and see for yourself how fine it is.

KEEP YOUR BOAT CLEAN WITH BON AMI

WILL YOU SEE HER IN MIDSUMMER AS YOU DO IN MAY?

You will, if you use SMITH FINISHES, for you thus eliminate any likelihood of midsummer sadness over a shoddy looking boat or because repainting is necessary for the very sake of safety itself.

Do not let a possible momentary saving or extravagant claims of unproved merit influence you to purchase an unfamiliar or low-priced "marine" paint. For years SMITH FINISHES have proved their gratifying superiority and their eventual economy for just such boats as yours! Time tells — not the label on a paint can.

Aquatite Spar—Designed to withstand excessive changes in weather and for general marine use.

Spar Coating—A true spar varnish in the old seafaring meaning of the word. Not for hulls nor interior work.

BX 127 Marine Spar Varnish (Bakelite)—A superfine brilliant all-purpose weatherproof Spar Varnish. Made with Bakelite resin.

Yacht White (Gloss and Semi-Gloss)—The most popular hull white on the market because it stays whitest.

Yacht White Flat (Exterior)—A beautiful flat white for hulls and other work.

Yacht White Enamel (Exterior)—A very white, full gloss enamel of the finest quality for boat hulls and other exposed work.

Cabin White Enamel (Interior)—A fine white enamel that works well, flows freely and is very durable.

Yacht White Undercoat — Specially formulated for undercoat purposes only.

Yacht Black Gloss—This enamel is designed for boat hulls and other exposed work.

Yacht Black Flat—A durable flat black enamel undercoat for use with Smith Yacht Black (Gloss).

Yacht Deck Paints—A high grade product, made from the very best materials which dry with the proper amount of lustre—do not streak from water and are waterproof.

Rigging Paint—All-Purpose Aluminum—An exceptionally high grade aluminum paint for wire rigging, anchors, turn buckles, etc.

Assure yourself of a spic and span craft through the entire season—with the added *protection* that superior Smith Paint accords. Specify SMITH FINISHES for all of your requirements. Check over the list at left and place your order with your yard or dealer now for delivery when you need it.

EDWARD SMITH & CO., Long Island City, N.Y.

TIME WILL TELL E.S. 1827 & Co.

SMITH "CUP-DEFENDER" FINISHES

STRIP

A Radically New PAINT and VARNISH REMOVER

Stays wet longer . . works quicker

Enables you to work larger surfaces. Reduces the quantity per job. Softens all kinds of finishes. Will not injure the grain of wood — requires no preparing of wood surfaces. It is not necessary to wash down surface before refinishing, a safety factor in repainting. STRIP will not run on vertical surfaces.

BOTTOM PAINTS

Hard Racing Finish—A hard glass-like finish for one purpose only — racing! Not anti-fouling.

All-Purpose Bottom Bronze—A powerful anti-fouling protection against marine vegetation and animal life.

Cruising Bottom Green—Anti-fouling protection, but smooth enough for the racing cruiser.

Fisherman Red Copper — For the yachtsman who cruises a great deal—anti-fouling.

Boot-Topping—A necessary requisite for a neat, clean-cut water line. Red, Green, Black and White.

Stanchion Enamel — High gloss — very durable hard finish but elastic. Brown, Red and Mahogany.

Engine Enamel — A Brilliant, Durable Finish. Will stand up under punishment of heat, gasoline, salt spray, etc. Should NOT be used on DIESEL ENGINES, as it is not impervious to fuel oil.

Escolux Engine Enamel—Specially formulated for use on DIESEL ENGINES. Withstands the action of fuel oil, lubricating oil, gasoline, salt spray, etc.

"It Works... Wonders"

ENTERPRISE

OUR men tell us that the new humidifying plant has made their work easier and the sails better than ever before. Canvas becomes pliant, less stiff, never "cracks" or "breaks" while they are working on it.

And, of course, the finished sails are stronger, look better, and will set better, as a consequence of added ease in handling.

This moisture treatment is but one of the many features which mark Ratsey sails as the best in the country. Yet, through economies in operation of an efficient plant, our prices compare favorably with any high standard of work.

It would be a pleasure for us to show yachtsmen through our plant. It has many unique and interesting features.

Let us estimate without obligation to you on your sail requirements for this season. You are assured of fair prices no matter what size the order may be.

Ratsey & Lapthorn, Inc.

Sailmakers Established 1790

Telephone: City Island 8-1012 City Island, New York City

ing that I would resurrect from the phrase the lovely poesy of the old time movies. Then, in the strengthened light, he looked at the main sheet and said something quite different in content and intonation. One strand of the sheet had parted at the after boom block and a second strand was badly chafed.

But it was all right. The four parts of the sheet were seized together with marline until a stout preventer could be got on the boom, the strain taken by it, and the sheet rove through enough to cut out the weakened part. As these repairs were completed, the wind came ahead and we hauled hard on it again for a space to maintain our distance from that foaming lee shore. Dawn had come none too soon.

We finished uneventfully at 2.00 P.M. of March 1st, having taken exactly fifty hours to cover the 187 miles. *Vamarie* was in and the *Water Witch* showed up the morning following. The nine remaining entries had sought shelter in the lee of Great Isaac, Cat Cay, or Bimini, or had run home to Miami, suffering from the usual ailments, their skippers displaying excellent judgment. Thinking of these nine, I took occasion to ask the president of the Southern Florida Boat Racing Association, which organized the race, whether it would be run again next year. He said emphatically that it would and that there would be more entries than there had been this year. I expressed the officious wish that the lame ducks would be barred from racing and he informed me shortly that the weather conditions were unprecedently bad.

I think they were pretty bad. I think also that old Father Neptune is getting tired of having his beard combed by unfit cruising yachts. I think, further, that the essential difference between lucky seafarers and able seamen will one day be disastrously demonstrated if race promoters don't watch out. Probably I'm wrong, as usual.

\+ + +

The Gloucester Fishing Schooner

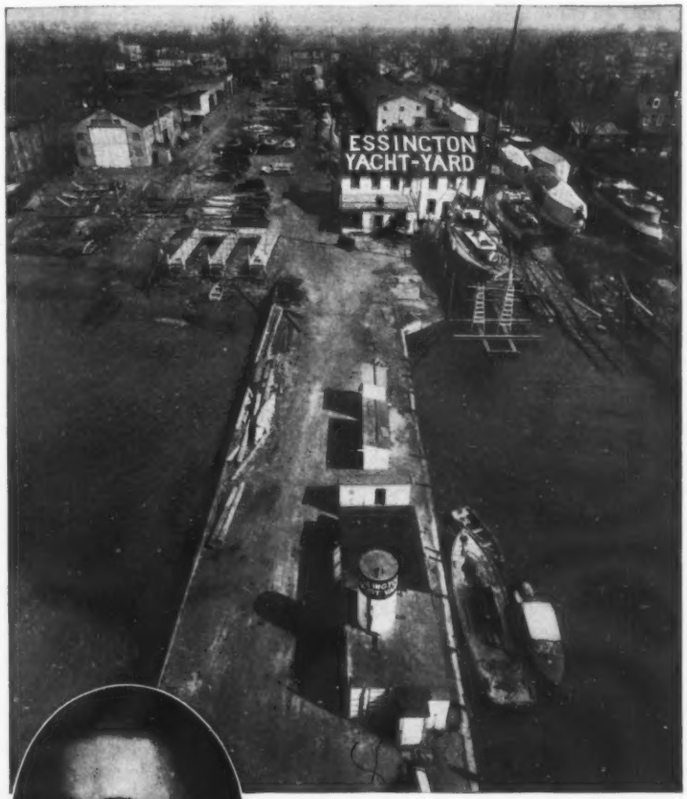
(*Continued from page 65*)

hangs. The new vessel was also given a catboat bow with a short overhang, the stemhead falling inboard at the top. Somewhat larger than the *Thomas*, the *Shepherd King* was at her best in a breeze and had a great reputation, not only for speed in heavy weather but also for seaworthiness. In Gloucester parlance, she was "a dog — she'd follow you anywhere."

After 1906, a number of the "Knockabouts" were built, many of them large and very fast. However, there was one objection to this type, and this affected later designs. The builders had always fixed the price of a new schooner on the over all length; hence, the owner of a "Knockabout" had to pay for the long overhangs first used on this type. Yet such a vessel as the *Helen B. Thomas* had less room and cargo capacity than an ordinary schooner of her length, making the "Knockabout" an expensive type to build in relation to her capacity. This objection was overcome by shortening and deepening the bow overhang. This, in turn, caused the later "Knockabouts" to have a high narrow rig in order to get the proper balance.

As an example of an improved "Knockabout" of the more modern design, Figure 4 shows the lines of the famous and beautiful *Arethusa*, built at Essex in 1907 by Tarr and James for Cunningham & Thompson, of Gloucester, from a design by McManus. She was intended to be the largest "Knockabout" that was practical in a fisherman, and is still the largest ever built at Essex. She measured 157 gross and 107 net tons, her registered dimensions being: length, 114′; beam, 25.6′

"FOR LASTING QUALITY . . . nothing better than *Plymouth Rope*"



At Essington, Pa., there is a boat yard whose President has supervised the rigging of hundreds of yachts. An enthusiastic yachtsman personally, he is well equipped by experience to give an unbiased and expert opinion of rope. Mr. George A. Smith says, "I do not feel that I can take chances with ordinary rigging — for lasting quality I know nothing better than Plymouth Rope. I rank it first and that is why I use it myself and urge our clients to use it on their boats."

You can't be lucky all the time. Sometime during the summer a tricky squall may catch you unaware and test the strength of your rigging. A stiff Northeast gale may put strain and stress on the mooring line. Or you may be anchored off a lee shore with a disabled engine and nothing to save you from piling up on the rocks except the strength of your anchor rope.

You need rope of lasting quality, of proven dependability for rigging, for mooring and anchor lines — for every place where rope is used on your boat.

In fair weather and foul, for everyday use and in emergencies, you can rely on Plymouth Ship Brand Manila Rope for its dependable strength which will insure you a safe anchorage and a season free from worry.

So check your rope equipment now! Demand the rope whose value makes it the most truly economical—whose quality makes it the safest. Replace worn rope with Plymouth Ship Brand Manila Rope—known to marine users of Cordage everywhere as "The Rope You Can Trust."

PLYMOUTH CORDAGE COMPANY
North Plymouth, Mass. and Welland, Canada

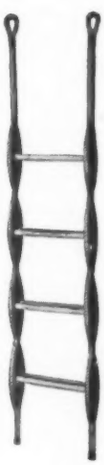
SALES BRANCHES

NEW YORK	BOSTON	NEW ORLEANS
BALTIMORE	CHICAGO	SAN FRANCISCO

NEW PLYMOUTH ROPE SPECIALTIES FOR YACHT OWNERS

You'll be interested in these new Plymouth Products. They'll make your summer afloat more pleasant and safe.

ROPE LADDERS



It's safer and easier to get aboard with one of these new Pilot's Ladders. They come with oval sides, round or flat rungs, also with flat steps or in the Jacob's Ladder type. Used as swimming or boarding ladders.

For cockpits or decks, for cabin floors, for floats and docks, you should use the New Plymouth Woven Rope Mats.

Netted Rope Fenders of Ship Brand Manila are now offered in four different styles and in a variety of Yacht and Ship sizes. The bags used on all styles are made from heavy cotton duck, strongly stitched and cork filled.

THE NEW PLYMOUTH READY MOORING LINE

is "Cop-Painted" to resist bacterial attack. Comes spliced, parcelled and served, with thimble, ready for use. Prices and recommended table of sizes and lengths will be sent on request.

Free BOOK

"Rope for the Boatman"

Shows knots and splices and gives important information on use and care of rope. Every boat owner should have it. Send for your free copy today.

PLYMOUTH

• SHIP BRAND MANILA ROPE •

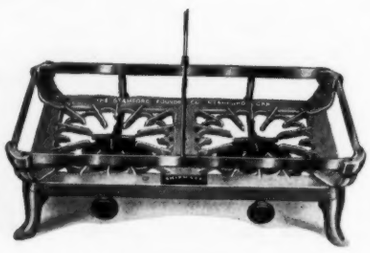
THE ROPE YOU CAN TRUST

ANNOUNCING
TWO NEW
SHIPMATES

SHIPMATE
FIREPLACE
CABIN
HEATER

A small compact fireplace offering the two-fold advantage of direct radiation and warm air circulation; equipped with shaking grate which permits the use of coal, wood, charcoal, briquets, cannel coal, etc; with ashpan to prevent dust being blown around the cabin. Finished in dark green vitreous enamel with polished brass trim, this heater adds to the beauty of the cabin as well as affording real comfort on cold and rainy days. It is heavily constructed with front and top of cast iron and trim of cast brass, yet it sells at a price within the reach of everybody.

SHIPMATE
ALCOHOL
STOVES



A new idea in alcohol stoves — all cast-iron — no sheet-iron to rust out. Will last for years. Four models.

Write for circulars fully describing these new SHIPMATES

THE STAMFORD FOUNDRY CO.
STAMFORD, CONN.

and depth, 12.5′. The *Arethusa's* maiden trip was to Newfoundland for frozen herring, in November, 1907. The next spring she was caught poaching in Canadian waters and was pursued by a Canadian cutter, but escaped. Later, she had a similar experience, escaping from the Canadian cutter *Fiona* by her sailing. In 1913, the *Arethusa* went ashore on Sable Island but got off again, a most unusual feat.

After the usual run of adventures common to the fishing industry, the *Arethusa* was bought by Captain Bill McCoy in 1921 for a rum runner. Painted white, and fitted with a short bowsprit (17′ outboard), with the name *Tomoka* on her bows, she was one of the most daring and notorious of the ships in "Rum Row."

The praise that McCoy lavished on his schooner can be appreciated by study of the lines shown in Figure 4. Power and beauty are combined with capacity and speed. It has been said that it is easy to design a fast fisherman as compared to the problem of designing one that combines both speed and capacity.

Figure 5 is the sail and rigging plan of the *Arethusa*, and shows the characteristics of the "Knockabout" fisherman rig and spar proportions, including, also, such typical details as the gallows for the fore or "jumbo" stay and the arrangement of the headstays.

Motors were installed in fishing schooners early in the century and steam auxiliary power was tried out much earlier. However, it was not until about 1910 that large power was tried and it was not until the war that such power became common. During and after the war, schooners were built with large power plants, like the *Mary E. O'Hara*, shown in Figure 6. This vessel was built at Essex in 1921–22 by A. D. Story for the O'Hara Brothers of Boston, and measured 108 gross and 49 net tons. Her registered dimensions were: length, 92′; beam, 22.8′; and depth 11′. Though not a particularly handsome schooner, the *O'Hara* is well liked and generally satisfactory under present conditions. She is now little more than a power boat.

A number of schooners similar to the *O'Hara* have been built in Maine but the out-and-out power boat was the most popular type previous to the present period of depression in the fisheries.

\+ + +

The Skipper of the "Golden Hind"

(*Continued from page 43*)

doctrines which commended themselves to the Englishman, which it may be supposed he hoped the Spaniard might find helpful, "together with the chastening he had received," in seeing the "errors of the Catholic religion." Poor Captain Anton! The treasure ship, in ballast, made the best of her way into Panama, while the heavily laden *Golden Hind* steered northwest. A few more prizes came her way, a few more golden ornaments, a ship full of silks and satins, of rare spices and drugs, of velvets and damasks — excellent dunnage for the more valuable chinaware and delicate jewels of the Collection. Last of all, one moonlit night, they came upon a prize which gave them a set of Spanish charts of the Pacific to guide the rovers homeward.

By this time the whole Pacific Coast had rubbed its eyes and was awake. The Viceroy of Peru made haste to cast six cannon, mounting them in two ships which came twenty days late to Cape San Francisco; the Bishop of Guatemala was melting down his cathedral bells to make more cannon; Don Martin Enriquez, Viceroy of Mexico, was drilling men, horse and foot, white and brown, marching them up hill and down again; ships were sailing hard to the southward to bar the way through Magellan Straits; messengers were

Her Engine

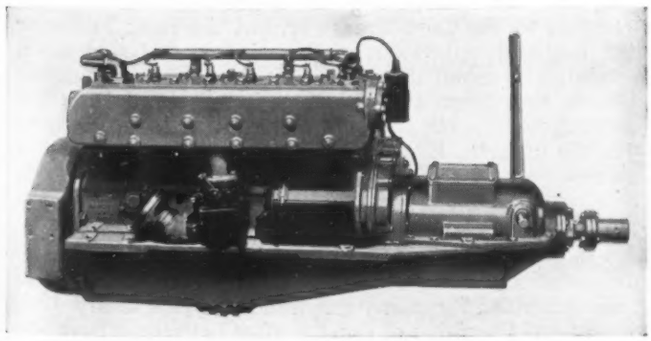
is constantly climbing a hill

THERE is no free wheeling or gliding without effort for the marine engine. When the boat is moving the motor is working and working hard. It takes real power to disguise this fact and a sturdy engine to give a long trouble-free life in marine service. Palmer engines have been doing both for forty years. Boat builders use Palmer Engines because they make boats perform as planned. Boatmen prefer Palmer Engines having seen what satisfaction they always give. If you can't see the Palmer line on display, send for descriptive literature.

PALMER BROS. ENGINES, INC.

4 Hathaway Road, Cos Cob, Conn.

PALMER — HERCULES
CONVERSION
62 H.P., 2200 R.P.M., $660 F.O.B., COS COB



THE PALMER LINE

YT1—1-cylinder.... 2 h.p.	NK2—2-cylinder....25 h.p.
PNR1—1-cylinder.... 6 h.p.	NK3—3-cylinder....35 h.p.
PNR2—2-cylinder....12 h.p.	NK4—4-cylinder....50 h.p.
PNR3—3-cylinder....18 h.p.	NK6—6-cylinder....80 h.p.
PNR4—4-cylinder....24 h.p.	Little Huskie—4-cyl...15 h.p.
ZR1—1-cylinder.... 7 h.p.	Half Huskie—2-cyl.... 5 h.p.
ZR2—2-cylinder....18 h.p.	Power-Boy Six—6-cyl. 40 h.p.
ZR3—3-cylinder....30 h.p.	P. A. L.—4-cylinder...25 h.p.
ZR4—4-cylinder....40 h.p.	Green Witch—6-cyl..150 h.p.
F2—2-cylinder....18 h.p.	Ford Conversion—
F3—3-cylinder....25 h.p.	4-cylinder...25 h.p.
F4—4-cylinder....35 h.p.	Storm King—6-cyl ...75 h.p.
F6—6-cylinder....50 h.p.	PH6—6-cylinder.....60 h.p.

DISTRIBUTORS

Boston, Mass.
Rapp-Huckins Co.
138 Waverly St.

Seattle, Wash.
Pacific Marine Supply Co.

Portland and Astoria, Ore.
Oregon Marine Supply Co.

Portland, Me.
Portland Pier

New York, N. Y.
89 Third Ave., between 12th and 13th Sts.

Baltimore, Md.
514 E. Pratt St.

Philadelphia, Pa.
437 Arch Street

Miami, Fla.
B. E. Shubert,
946 N.W. 7th Ave.

Jacksonville, Fla.
112 South Ocean St.

Tarpon Springs, Fla.
775 Anclote Blvd.

Houma, La.
Claudio Belanger

San Francisco, Calif.
Boardman and Flower
1740 Van Ness Ave.

Vancouver, B. C.
V. M. Dafoe, 1100 Powell St.

Biloxi, Miss.
Kennedy Bros.

PALMER

LOOK before you LAUNCH

LOOK at the bottom. See how the copper paint stood up, how it protected against fouling and worms. Look into the subject of real bottom protection. The kind of protection that is afforded by TARR & WONSON'S COPPER BOTTOM PAINTS. Look at the added cost of another painting in August, for this will be necessary if inferior bottom paints are used.

TARR & WONSON'S COPPER BOTTOM PAINTS have a seventy year reputation of giving complete bottom protection. Paint the bottom this year with TARR & WONSON'S then launch, knowing that your boat has as fine bottom protection as can be bought.

TARR & WONSON
LIMITED
GLOUCESTER, MASSACHUSETTS
Copper Paint Makers since 1863

TARR & WONSON'S COPPER BOTTOM PAINTS come in these colors:

- BROWN COPPER PAINT
- RED RACING COMPOUND (for fast slippery bottom)
- GREEN COPPER PAINT

TARR & WONSON'S
new line of boat paints are worthy of your consideration when you do spring fitting out. Look over this line. It is complete. It is reasonably priced.

hastening over the Isthmus to Nombre de Dios and Old Spain with the news. There was, as Drake's men would say, "the Devil to pay and no pitch hot."

And the *Golden Hind* — considerably less than a hundred feet over all — stood away far to the northward into unknown seas, and then made herself small for a while in a haven nearby where now stands the noble city of San Francisco.

Here it was that the natives, who had never before seen white people, made much of the men and a King of Captain Drake, which honor he accepted on behalf of his Sovereign Lady, causing, before his departure, a tall post to be erected wherein the ship's carpenter cut deep the name "Elizabeth." Underneath was a brass plate whereon was recorded a claim for England of this province of New Albion; and below, again, they banged a silver sixpence of current money upon which was the Queen's picture. (As Drake told this part of the story Elizabeth looked a little annoyed, for she felt that in that particular portrait the artist had scarcely done her justice.) And beneath all Mr. Chips cut the name "Francis Drake." (Here, as she fondled a beautiful pearl necklace which the sea dog had given her, the Queen smiled — there was a loverlike touch about this name cutting.)

So across the wide and stormy ocean, which men call Pacific, they sailed homeward bound, past the Isle of Thieves to Mindanao, south among many islands to meet strange kings, and on to what might once have been some dusky Calypso's isle, so beautiful it was. Here the little ship lay refitting for a month beneath the branches of gigantic trees which towered high above her masthead.

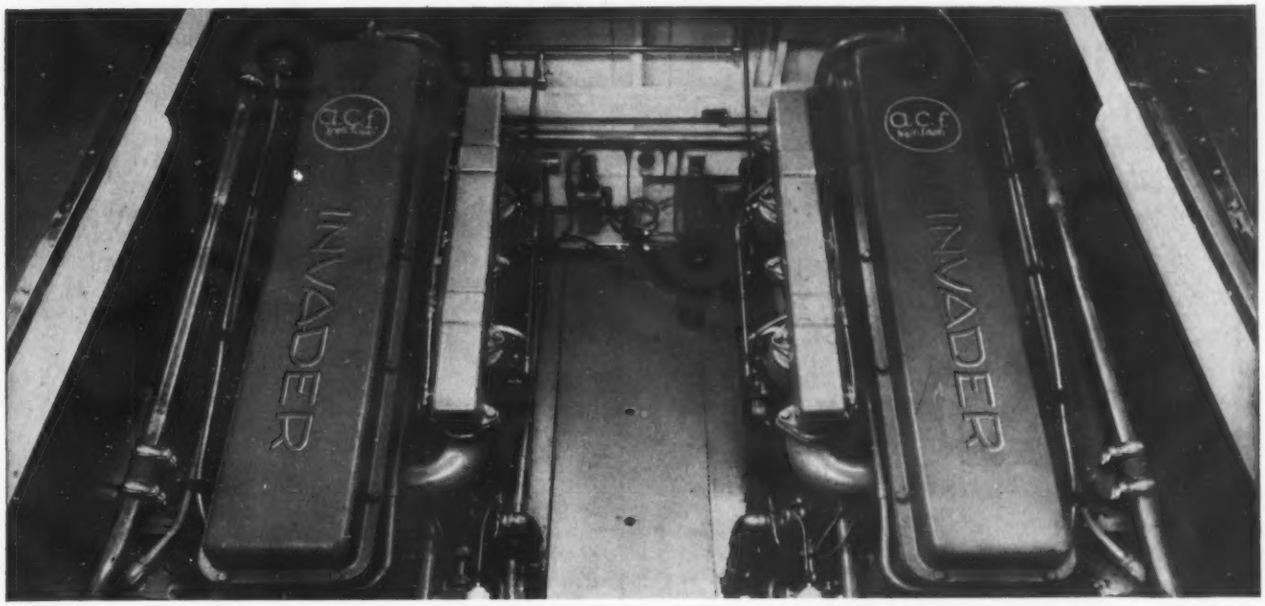
Refreshed with delicious fruits, they sailed again, but not long after crashed upon a sunken reef, where all seemed lost and the ship's bell tolled for prayers and a sermon from the chaplain. When, after great exertions, the ship was refloated and came clear, the captain remembered the sermon, which had struck him as a little too pointed in parts, so fitting himself out as the Pope and sitting solemnly on deck, he there excommunicated his chaplain from the Church, consigning him to the devil and all his angels. (The Queen thought this very wicked of her versatile sailor — but she laughed a little, too.) Once clear of the tangle of islands and coral reefs of the East Indies, the *Golden Hind* made a most happy passage around the Cape of Good Hope to Sierra Leone, whence, after filling her water casks for the last time, she set sail for England.

As Drake finished his story, of which here is but a faded outline, the late October day was ending; the firelight shone on the Queen's face and illumined the little piles of damasks and eastern embroideries and silks with fantastic figurings, which lay at her feet; and William Cecil, Lord Burghley, entering to lay before his Royal Mistress a document of State, noticed in the lady's lap a little heap of jewels. As Elizabeth pretended to read, she noticed that the sailor proffered a golden trinket to the Lord Treasurer, but the Lord Treasurer of England looked out of the window and said not a word. The rebuff did not worry the seaman, though it made the Queen think, and the great Lord Burghley withdrew, leaving the lady thinking. A jewel glittered in the firelight, Elizabeth thought again, and — as you know — made a knight of Francis Drake.

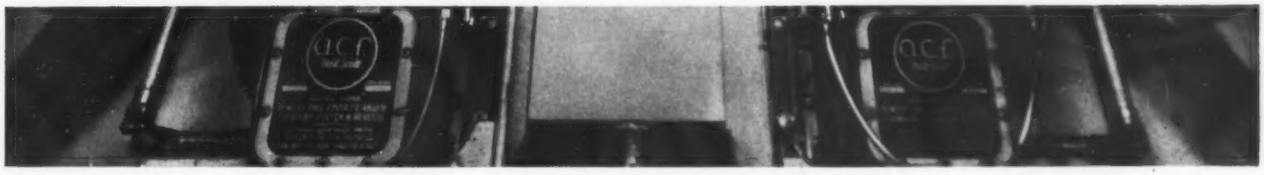
The Dimensions of the "Golden Hind"

It seems strange that there should be no authentic dimensions of the *Golden Hind* preserved, considering she remained for nearly one hundred years in dry dock as one of the sights of London after her return from the circumnavigation. An estimate of her size arrived at by the measurement of the bricks used in building her dock

Hall-Scott INVADER: *250-275 h.p.: Bore 5½", stroke 7": 6 cylinders: 997.8 cubic inches displacement: Seven main bearings: Counterbalanced crankshaft: Reverse gear (capable of transmitting 400 h.p.) reverse ratio 100%: Weight 1950 pounds: Available in either right or left hand rotation, single or pairs: Write for prices and full engineering data.*



THE 275 h.p. HALL-SCOTT INVADER IS NOW ONLY $2800



Reductions have been made on other models also.

The 275 h.p. HALL-SCOTT INVADER burns only .58 pounds of fuel per horsepower per hour.

The 275 h.p. HALL-SCOTT INVADER weighs only 1950 pounds, and requires very little space.

The 275 h.p. HALL-SCOTT INVADER is safe, silent, and exceptionally free from vibration.

The 275 h.p. HALL-SCOTT INVADER at last year's price far outsold the entire competitive field.

The 275 h.p. HALL-SCOTT INVADER, now only $2800, is the outstanding buy of the year.

HALL-SCOTT MOTOR CAR COMPANY

Division of American Car and Foundry Motors Company · 254 West 31st St., New York, N.Y.

BERKELEY, CALIF. · VANCOUVER, B. C. · LOS ANGELES, CALIF. · SEATTLE, WASH. · DETROIT, MICH.
IN MIAMI, FLORIDA, J. FRANK KNORR · IN NEW ENGLAND, MARINE EQUIPMENT CO., OF BOSTON, MASS.

Dear Mr. Yachtsman:

Fitting out? Then may we remind you to install that AECO electric windlass or sail hoist you needed so much last season.

Very truly yours,

AECO

AECO

Type "G" Electric Windlass

The Mark of Distinction

WINDLASSES BOAT HOISTS
SAIL HOISTS STEERING GEARS
DAVIT WINCHES ANCHORS

Ask your boat yard for particulars or write for literature

AMERICAN ENGINEERING CO.
2432 Aramingo Avenue
Philadelphia Pennsylvania

at Deptford gives 75 feet l.o.a., 60 feet l.b.p., 47 feet keel, 19 feet beam, and 9 feet or 10 feet depth. On the other hand, it is said that she once paid dues on 150 tons, which was presumably her gross tonnage, and this would mean about 113 tons burden. By giving her three more feet of beam and another foot of depth, we would bring her nearer to the usual proportions of a merchant ship, and by using 100 as a divisor would have $113\frac{74}{100}$ tons, a small enough ship in which to preserve in good health 56 men for a period of three years. I should think that her dimensions are likely to have been: Length between perpendiculars 65 feet, keel 47 feet, beam 22 feet, and depth in hold 11 feet, but there was no standard arithmetical system of tonnage measurement in England before 1582, and for some years afterwards Thames merchant shipbuilders measured for beam and depth outside the planking and divided by 94, while Government yards measured inside the planking and divided by 100.

\+ + +

A Springtime Reminder

(*Continued from page 48*)

be shut off when turning in and, if the door is not opened during the night, be fairly cold in the morning. This will obviate running the generator during the night and disturbing your shipmates as well as folks on boats anchored near.

Is the wood around the stove well insulated, with asbestos, sheet metal and a good air space? Is there protection against hot ashes? If not a coal range, is the fuel tank above the stove, where the shut-off in the fuel line cannot be reached in case of a flare-up? The tank would be better in another compartment, and a tank of bottled gas should be on deck, with its pipe coming down alongside the stove and not behind it.

Do you get enough fresh air below in bad weather, when ports and skylights must be closed? You might consider having a ventilator that allows air to enter but excludes water until she begins to ship it green, when even a trap ventilator must be closed. Is there a hatch or skylight over the galley so that the hot air will get out quickly? And is this square so that it may be set athwartships if you wish? A slight alteration to the present one may do much for the cook's comfort.

Use your imagination in looking around on deck. Can you toss a life ring over without leaving the wheel and without having to untie a jammed knot? Are the required life preservers accessible? While not particularly sightly, the steamboat plan of stowing them overhead, between the carlines of the roof of the bridge deck (if there is room), might be considered. A few light battens fastened by slim brads will keep them in place. Or perhaps slats under the seats will provide stowage.

Are running and riding lights in good condition and up to the legal requirements? This will be a good time to make improvements. If the sidelights show across the bow, a cleat on the forward end of each screen will cure this. The bow light may also need to be screened if it shows too far aft.

There may be countless other improvements which may be made without much difficulty or expense; merely a few have been suggested. Think back over the events of the past season and see where a slight change in some gadget, or a slight rearrangement of a locker, or an additional shelf, would have made a difference in your comfort or in the ease of handling the boat. While she is going through with her regular spring overhauling, it will be much easier to make any changes than when she is in commission. Remember the old seagoing proverb: "A ship is never finished until she is sunk!"

"HOODED POWER"

NEW IMPERIAL MODELS GIVE NEW KIND OF OUTBOARD PERFORMANCE . . . NEW SMOOTHNESS . . . NEW STARTING EASE . . . NEW QUIET

"THE most amazing motor I've ever run" . . . "Everything you've said about them is true" . . . "No noise, no vibration — that's the motor we've been waiting for" . . . "I think your Simplex Starter is the best device ever put on an outboard" . . . "You can't compare these motors with any others — they are simply a new kind of outboard".

Performance tells the story!

Hooded Power IMPERIALS now are proving their claims *on boats* the country over.

Verbally, and in an avalanche of letters, experienced boatmen tell what *they* think.

Their vote is unanimous and convincing.

The Imperial models have definitely introduced a new type of outboard motor.

They have proved that undreamed smoothness *can be* achieved — that an almost final degree of quiet *can be* attained — that a new peak in starting ease *can* be reached — that an outboard motor *can be* enclosed — and that neither low weight nor high power nor moderate price need be sacrificed in the accomplishment.

You cannot be up-to-date in your knowledge of modern motors without knowing the facts on "Hooded Power". Get the catalog and name of your dealer — a no-obligation demonstration will be arranged whenever you like. Outboard Motors Corporation, 5396 N. 27th Street, Milwaukee, Wis.

NINE SILVER ANNIVERSARY MODELS PRICED AS LOW AS $79.50

For those who require a smaller, lighter motor than Lightwin *Imperial*, or greater power than the Lightfour *Imperial*, Evinrude and Elto offer seven other models that comprehensively cover every outboard motoring requirement. All (excepting Fisherman model) are built around the silent, trouble-proof internal Rotary Valve. All are underwater silenced. Each is a conspicuous value in its class. Write today for complete catalog.

THE SINGLE. 2.2 N. O. A. certified brake horsepower at 3500 R. P. M. Weighs only 29 pounds. Ideal for dinghies and other small hulls. $79.50.

Elto

SEND FOR CATALOG!

OUTBOARD MOTORS CORPORATION
5644 N. 27th Street
Milwaukee, Wis.

Send me your complete catalog of Silver Anniversary models.

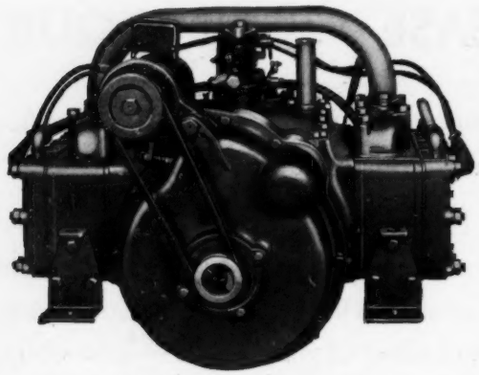
Name.....

Address.....

"Stow-away Power"

MIDSHIPMAN II

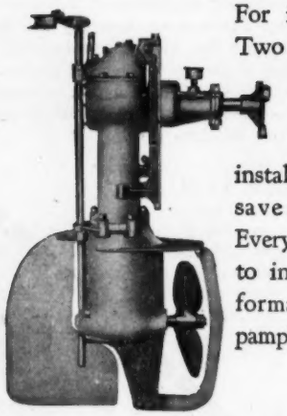
The Modern Marine Inboard Engine



A rugged, dependable 4 cycle, 4 cylinder marine engine developing up to 33 hp. at 3200 rpm. that stows completely in space 2 ft. x 2 ft. x 1 ft. height above crank center, complete with reverse gear and electric starter. For most power in least space, look into Midshipman II. Write for details.

. . . for any Engine

GW STERN DRIVES



For inboard engines. Two models—A-25 for up to 40 hp., A-50 for up to 80 hp. Simplify installation, reduce cost, save space in boat. Every detail perfected to insure reliable performance. Write for pamphlet.

Don't pass up these great G-W developments. Write for printed matter.

GIFFORD-WOOD CO.

7 HILL STREET, HUDSON, N. Y.

New York 420 Lexington Ave. Chicago 565 W. Washington St.

614

How Fast?

(*Continued from page 70*)

from ten to eleven miles an hour. Boat "B" is not quite so bad, although a comparatively rapid increase is found between eleven and twelve miles an hour. These curves on Chart 2 show clearly how conservative one must be in estimating any increase in speed due to increase in horse power.

Among the many factors which complicate the problem of attempting to estimate the speed of a boat for a given horse power in the motor is the propeller question. Only a part of the power delivered by the motor to the propeller is actually used in driving the boat. The efficiency of the propeller has, therefore, just as much influence in determining what power is needed as does the resistance of the hull. A little, high-speed motor installed in a big, slow-speed hull cannot be fitted with an efficient propeller and will not give the speed which would be obtained if the motor were chosen so that revolutions were properly suited to the hull.

The modern trend in motors is toward high speed, a trend which tends to demand inefficient propellers for anything except speed work. Reduction gears more than pay for themselves in nine cases out of ten by applying the power to the propeller so that it can be used efficiently.

Just as in an automobile or an aeroplane, the weight of the boat is of great importance in determining how fast she will go with a given motor. It is useless to try to attempt to predict the speed of a boat unless her weight in running condition is known. This weight must include crew, all stores, fuel, water, and every item on board the boat during the speed trial. The majority of the manufacturers of stock boats are able to state the weights of their different models. The weights which they give are usually the weights of the empty boats before the wood of the hull has absorbed water, without fuel, oil, crew, or passengers, and often without stores and equipment. If the boat is a special job, the designer should be able to give the weight in running condition. No matter how it is obtained, a fairly accurate measure of the weight of the boat is required.

When the weight of the boat has been determined, it is comparatively easy to make an approximate estimate of speed provided the boat is a planing type. Chart 3 is laid out to give approximate speeds of planing hulls. First, determine how many pounds the boat will weigh for every horse power. This is easily found by dividing her weight in pounds in running condition by the brake horse power of the motor. The scale of pounds per horse power is given at the bottom of Chart 3 and three diagonal lines are shown corresponding to the three different types of planing hulls.

To use the chart, start at the bottom with the pounds per horse power of the boat and trace vertically upward to meet the diagonal line for the type of hull. From that point, carry horizontally to the speed scale at the left of the chart. For instance, if the weight of a V-bottom runabout is 20 pounds per horse power, she should make about 39 miles an hour; if 40 pounds per horse power, she should do about 26 miles. The latest *Miss America*, weighing about 2½ pounds per horse power, will probably do 130 miles an hour when wide open. A Gold Cup boat weighing about ten pounds per horse power should do 67 miles an hour. This chart, however, is of no value unless the boats are planing because it takes no account of length. Length has very little value when the boat planes completely, and a fair estimate of speed can be made without considering length at all.

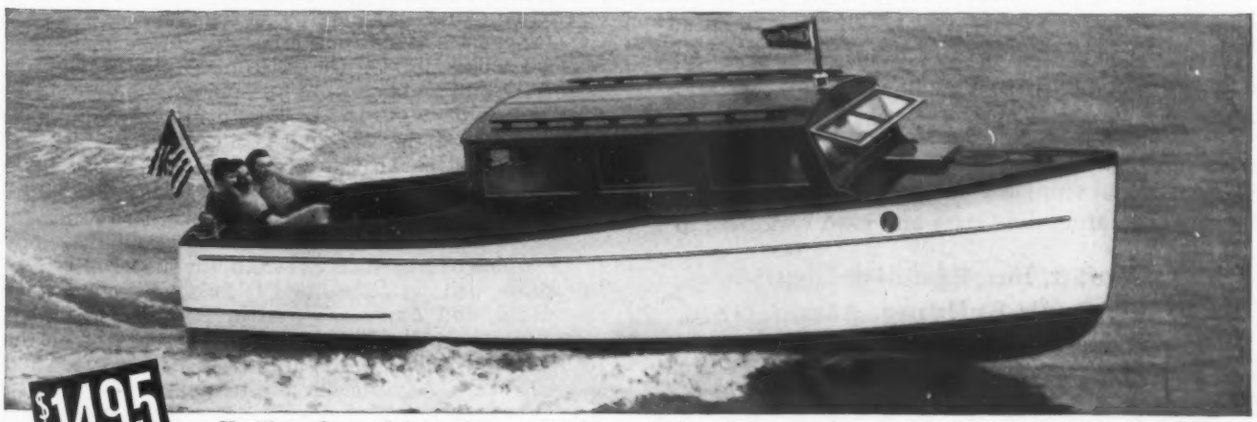
To estimate the speed of the ordinary displacement type of motor boat is much more difficult, for length is of great importance, as well as weight, and both must be

GET in a Chris-Craft and GO!

$495

You'll thrill at the speed of this new 15½-ft. utility model . . . You'll marvel at the beauty of finish, workmanship and materials used . . . You'll "rave" about the value . . . for it's a full sized, genuine Philippine mahogany inboard motor boat at the price of an "outboard," powered by a 4-cylinder 32 H. P. motor. Other Chris-Craft utility models are priced from $795 to $1695. F. O. B. Factory.

There's a pleasant surprise waiting for you in this smart 18-ft. *LEVEL RIDING* runabout with double cockpit forward and direct drive. It has a speed of 31 miles per hour and the style, pep and zip that's found in all Chris-Craft. It is priced at $1150, F. O. B. Factory, and operates at a cost comparable to that of a low priced car. Other Chris-Craft runabouts are priced from $795 to $4750. F. O. B. Factory.



$1495

You'll stand up and shout when you see this new 24-ft. cruiser with complete living and sleeping accommodations for four, including galley, toilet, electric lights, running water, fresh water tank, 4 comfortable berths and 6-ft. headroom. Speed 20 miles per hour. Price complete $1495. F. O. B. Factory. Write for data.

SEND THE COUPON FOR A **FREE** copy of "Water Ways," Pictorial Rotogravure Magazine.

CHRIS-CRAFT CORPORATION, 404 Detroit Road, Algonac, Michigan

Factory Branch—6 W. 52nd Street, New York • 24 models and types—priced from $495 to $9,600 f. o. b. factory

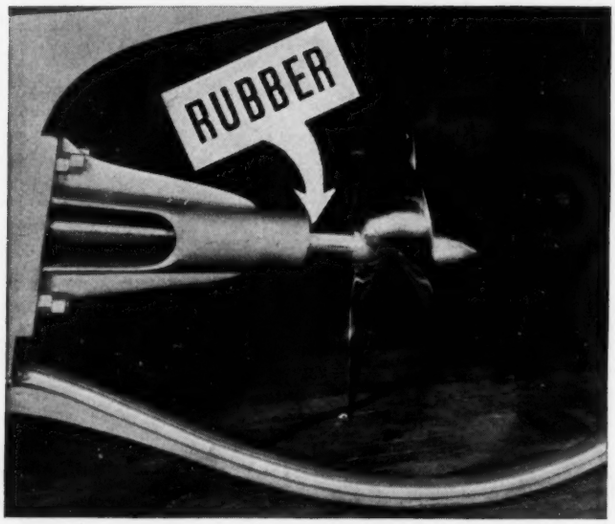
CHRIS-CRAFT CORPORATION · 404 Detroit Road, Algonac, Mich. (213)

Please send me a free copy of "Water Ways."

*Name*_____ *Address*_____

*City*_____ *State*_____

Ride on RUBBER
for Comfort
ON WATER AS ON LAND



METAL or lignum vitae propeller shaft bearings are as out-of-date as solid tires on your car. Modern soft-rubber tires absorb vibration and shock, guarantee you against break-downs, last many times longer than the old-fashioned kind. Modern soft-rubber propeller shaft bearings do the same.

Made only by Goodrich, these Cutless Bearings reduce vibration, increase power, and last so long that you need not fear mid-season lay-ups for repairs. Cutless Bearings wear 4 to 12 times as long as the finest bronze, babbitt or lignum vitae you can buy.

Make your "pleasure boat" live up to its name—investigate Goodrich rubber Cutless Bearings at any recognized shipyard or marine supply house, or write for interesting data and case histories, to

Lucian Q. Moffitt, Inc., Exclusive Distributors, 501 Peoples Bank Building, Akron, Ohio.

Goodrich
Cutless
Bearings

taken into account. Naturally, there are many other factors to be considered in any scientific calculation, but we are not being scientific, but practical and general.

Chart 4 has been prepared to estimate the speed of the displacement type, where there is no planing action, although there may be change of trim. The weight of the boat should be taken in tons — again 2,000 pounds representing a ton for the purposes of this article. Then find the brake horse power per ton of displacement by dividing the horse power by the displacement or weight in tons. The length on the water line must be known.

The procedure in using Chart 4 is to enter the chart at the top where the length of the boat on the water line is shown. Drop vertically down to meet the heavy diagonal line marked "Length Line." Carry that point horizontally over to the edge of the chart at the left. Then, from that point, follow the slope of the light diagonal lines to a point which corresponds to the given brake horse power per ton, back again horizontally to the left of the chart, and read the speed in miles per hour on the scale.

To illustrate the use of the chart, take boat "B" in Chart 2, having a length of 86 feet, a displacement of 90½ tons, and figure what speed would be obtained with 175 horse power. The horse power per ton is 1.93. Begin at the top of the chart and follow down the dotted line which corresponds to 86 feet to point "B" on the length line, travel horizontally to the left to point "C," follow the slope of the light diagonal lines from "C" to point "D," "D" corresponding to 1.93 brake horse power per ton. From "D" go back horizontally to the left and read the speed on the speed scale at 11½ miles per hour. It will be noted from Chart 2 that 175 horse power gave a speed of 11 miles an hour. We have therefore overestimated by half a mile, a comparatively small error.

For heavy, full-bodied boats, the chart will give speeds somewhat too high when the speed-length ratios are over 1.1 and somewhat too low when they are below .8.

\+ + +

Honors Divided at Palm Beach

(Continued from page 45)

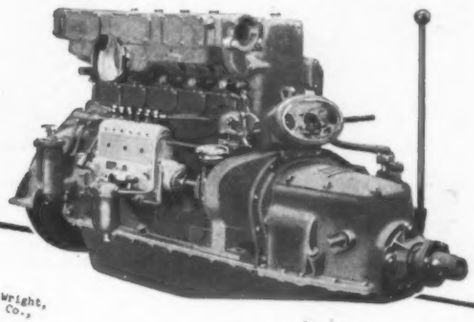
Maurizio Ruspoli, captain of the Italian team, is driven by a 6-litre Bugatti. During the race on the 16th his boat caught fire and he had to jump overboard while she was speeding at a 50-mile pace. A jinx seemed to have been after Count Rossi. At the start of the first race he had to slow down to avoid bothering his team mate and finished a bad last. On the 16th, his engine stalled just before the gun and he lost more than two laps before his boat got under way. In the final event, three minutes before the start, he was in collision with an outboard which had gotten on the course and *Barracuda* had a hole knocked in her near the water line.

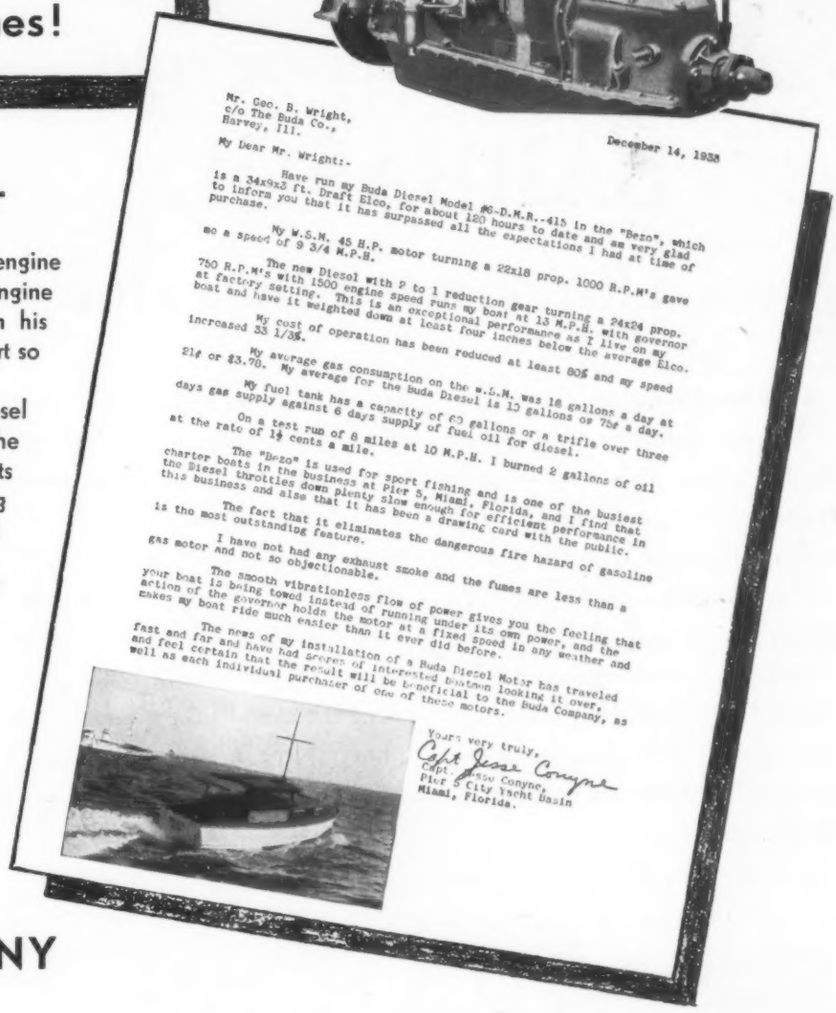
In the first 12-litre race on the 13th the two American entries led over the starting line but were soon passed by *Lia-V* which averaged 53.22 m.p.h. for the 24-mile race. Bill Horn, driving *Delphine VI*, finished second, with *Imp* third, and *Barracuda* fourth. *Delphine VII* went out of action on the fourth lap. *Lia-V* repeated on the 16th, she and *Niniette IV* running away from *Imp* and *Delphine VII*. *Niniette* burst into flames on the fifth lap and was towed off the course. *Barracuda* stalled and lost seven miles before she got going. In the finals on the 18th, Becchi drove *Lia-V* to victory at an average speed of 54.102 m.p.h. She ran like clockwork with apparently plenty of reserve power. *Imp* was second and *Delphine VII* third. *Delphine VI*, into which a supercharged engine had hastily been shifted, gave out on the fifth lap. The final standing for the Vincent Bendix trophy, the International 12-Litre Championship, was *Lia-V*, 1200 points; *Imp*, 1046; *Delphine VII*, 648; *Barracuda*, 578; *Delphine VI*, 361.

BUDA Offers YOU these same Advantages!

- Operating costs reduced 80%.
- Speed increased 33⅓%.
- Cruising range doubled.
- Business increased— due to reduced fire hazard and less fumes!

Buda 6-cylinder M.A.N. Full Diesel Engine used on the Bezo





Mr. Geo. B. Wright,
c/o The Buda Co.,
Harvey, Ill.

December 14, 1933

My Dear Mr. Wright:-

Have run my Buda Diesel Model #6-D.M.R.-415 in the "Bezo", which is a 34x9x3 ft. Draft Elco, for about 120 hours to date and am very glad to inform you that it has surpassed all the expectations I had at time of purchase.

My W.S.M. 45 H.P. motor turning a 22x18 prop. 1000 R.P.M's gave me a speed of 9 3/4 M.P.H.

The new Diesel with 2 to 1 reduction gear turning a 24x24 prop. 750 R.P.M's with 1500 engine speed runs my boat at 12 M.P.H. with governor at factory setting. This is an exceptional performance as I live on my boat and have it weighted down at least four inches below the average Elco.

My cost of operation has been reduced at least 80% and my speed increased 33 1/3%.

My average gas consumption on the W.S.M. was 16 gallons a day at 21¢ or $3.70. My average for the Buda Diesel is 10 gallons or a trifle over three days gas supply against 6 days supply of fuel oil for diesel.

My fuel tank has a capacity of 60 gallons or a trifle over three days gas supply against 6 days supply of fuel oil for diesel.

On a test run of 8 miles at 10 M.P.H. I burned 2 gallons of oil at the rate of ¼ cents a mile.

The "Bezo" is used for sport fishing and is one of the busiest charter boats in the business at Pier 5, Miami, Florida, and I find that the Diesel throttles down plenty slow enough for efficient performance in this business and also that it has been a drawing card with the public.

The fact that it eliminates the dangerous fire hazard of gasoline is the most outstanding feature.

I have not had any exhaust smoke and the fumes are less than a gas motor and not so objectionable.

The smooth vibrationless flow of power gives you the feeling that your boat is being towed instead of running under its own power, and the action of the governor holds the motor at a fixed speed in any weather and makes my boat ride much easier than it ever did before.

The news of my installation of a Buda Diesel Motor has traveled fast and far and have had scores of interested boatmen looking it over, and feel certain that the result will be beneficial to the Buda Company, as well as each individual purchaser of one of these motors.

Yours very truly,
Capt. Jesse Conyne
Capt. Jesse Conyne,
Pier 5 City Yacht Basin
Miami, Florida.

Read the letter—

Capt. Conyne can't afford to have engine trouble. His boat is his livelihood and his engine and its performance plays a large part in his business success, for nothing kills good sport so quickly as engine troubles.

The Buda 6-cylinder M.A.N. Full Diesel Engine has meant a real increase in both the profits and popularity of Capt. Conyne. Costs reduced! Speed increased! Greater cruising range and reduced fire hazard, fumes and smoke.

Whether your boat is used for business or pleasure, these advantages are worth thinking about. They mean more business and more pleasure for you.

Read the letter! Buda has a Diesel for your boat — both 4- and 6-cylinder from 32 to 126 h.p. — and with the Shock Absorber Head, an exclusive feature that means smoother operation and less smoke.

Write for details

THE BUDA COMPANY
Harvey (Chicago Suburb) Illinois

BUDA MARINE ENGINES

DIESEL OR GASOLINE

● IN-BAD THE SAILOR, AND THE OLD MAN OF THE MUG

With hot water or cold BARBASOL gives a finer, smoother shave

ANY kind of water does equally well—hot or cold, salt or fresh—when you shave with Barbasol, the modern shaving cream, the favorite of the Navy.

No Old Man of the Mug to irritate you with the need of working up a lather, because no lather is needed. Just wet your face, spread on Barbasol and give yourself a shave as smooth as Kelly's dancing.

Of course, Barbasol's "*no brush, no lather, no rub-in*" way of shaving saves time, at least two minutes. Does away with the need of lugging a germ-collecting brush in your kit. Get yourself one of those jumbo-big tubes of Barbasol at any drug store, slip a Barbasol Blade into your razor and take yourself the finest shave a sailor ever had.

THE BARBASOL COMPANY
Indianapolis, Indiana

Barbasol presents EDWIN C. HILL, *news commentator, C. B. S. See local newspapers for time*

BARBASOL BLADES
5 for 25¢

A good, honest blade. That's what Barbasol set out to make, and that's what we've got to sell—a brilliant new blade, sharp as an ensign's tongue, true as the flagship's Colors. On sale wherever Barbasol is sold.

FOR MODERN SHAVING: NO BRUSH · NO LATHER · NO RUB-IN

Two New Shipmate Products

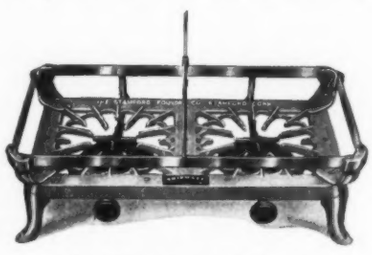
Meeting the demand for a fireplace type cabin heater which can be purchased at a moderate price, the Stamford Foundry Company, manufacturers of the well known Shipmate ranges, is introducing such an appliance, incorporating into it several new features. Among these may be mentioned the shaking grate, which helps in maintaining a good fire and which is suitable for burning coal, wood, char-

Fireplace type cabin heater

coal, briquettes or cannel coal. It is fitted with an ashpan which eliminates from the cabin the dust and ashes ordinarily scattered about when ashes are shoveled out. Its double wall construction assures a circulation of warm air in addition to the heating effect of the direct radiation from the fireplace. There is also a sturdy "kindler" which covers the fireplace opening when a new fire is being coaxed or when it is desired to make the existing fire burn more briskly.

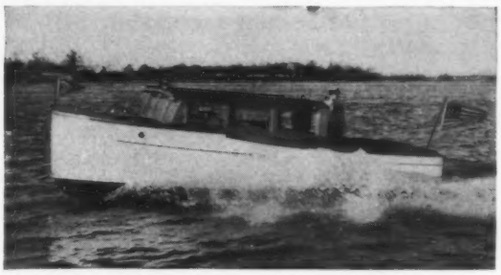
The model illustrated is finished in dark green vitreous marbleized enamel, with rails and standards, handles and feet of polished brass.

Another of this company's products which will serve to round out its line and provide yachtsmen with an alcohol range of the same general characteristics as the other types of Shipmate ranges, is the line of all cast iron Shipmate alcohol stoves, four new models of which are



The all cast iron alcohol stove

available. These are two burner and three burner stoves, finished in either black japan or grey vitreous enamel. Each unit is complete with one-gallon polished copper tank fitted with fuel line shut-off. All fittings and tubing necessary to make the installation are provided.

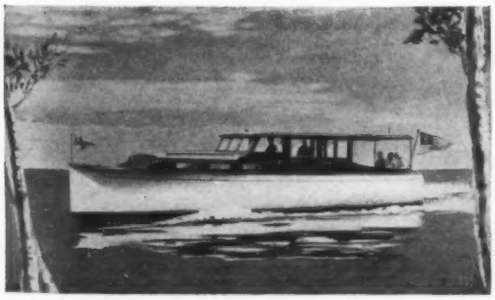


RICHARDSON LITTLE GIANTS
24′ X 7′ 6″ X 22″

The world's first and only cruiser that is large enough for two or ten, fast enough to give a large cruising radius, seaworthy and livable, yet it can be purchased, operated and maintained at lowest possible cost. Richardson Little Giant is available with two arrangements and priced at $1245 for the Commuter and $1345 for the standard deck house cruiser with berths, toilet and galley. Richardson Little Giants are powered with Model 4–40 Gray Marine motors for 15 *actual* low priced miles per hour. Additional speed available with larger motors at slight additional cost.

RICHARDSON JUNIORS
28′ X 8′ 2″ X 2′ 4″

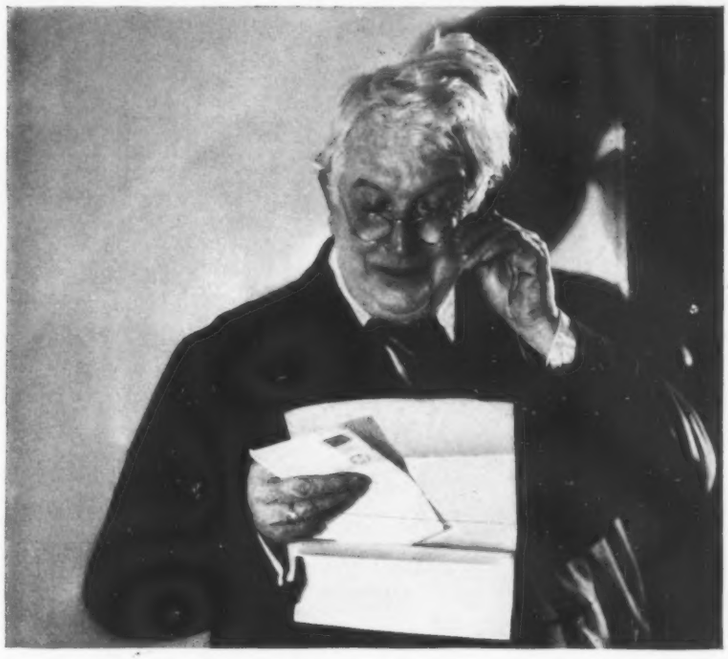
A bigger boat for those who want more cabin and cockpit space and more comfort. Richardson Jr. is built with three interior arrangements. Two are the Commuter and deck house cruisers like Little Giant and are priced at $1895 and $1995. The third arrangement, shown above, is a Trunk cabin cruiser with four berths, toilet room and galley and is priced at $2595. A Gray Model 4–44 Marine motor drives Richardson Jr. 14–15 *actual* low priced miles per hour. Larger motors for increased speed can be installed at slight additional cost.



RICHARDSON CRUISABOUTS
32′ X 9′ 6″ X 2′ 6″

The most beautiful and largest cruisers of their inches you ever saw. Available in Single or Double Cabin, Vee-drive and Day Cruisabouts with open or enclosed cockpit and with sleeping accommodations for four, six or eight people. Powered with Gray 6–75s for 15 m.p.h. economical speed. Priced from $3385 to $4435. Twin screws and additional speed up to 27 m.p.h. are obtainable at additional cost.

RICHARDSON BOAT CO., INC.
365 SWEENEY STREET
NORTH TONAWANDA, N. Y.



"Well, Well, Well, Danny's Bought a RICHARDSON!"

"DANNY and I will have some gra-a-and trips this summer fishin' and cruisin' to those quaint, out-of-the-way places we've always wanted to see. Buying a Richardson certainly proves that Danny knows his boats. For almost as long as I can remember, the boys at the Yacht Club have been unanimous in their opinion that a Richardson is, by far, the world's biggest cruiser value."

★ ★ ★ ★ ★

Richardson booklet "F-34" illustrating and describing the Richardson Little Giants, Richardson Jrs. and Richardson Cruisabouts, is free. Send for your copy today or inspect the 1934 Richardsons at Bruns-Kimball & Co., 5th Ave. & 15th St., New York City; Walter H. Moreton Corp., 1043 Commonwealth Ave., Boston, Mass.; Flood Gate Motor Boat Sales Agency, 14th & Water Sts., Washington, D. C.; C. P. Amory, C. & M. Bank Bldg., Newport News, Va.; Henry I. Coleman, 9 Bay St., West, Savannah, Ga.; Howard Bond, County Causeway, Miami, Fla.; S. S. Levy, Union Bldg., New Orleans, La.; Bennett Boat Co., Mayfield, New York; Stadium Yacht Basin, Foot of West Third St., Cleveland, Ohio; A. M. Deering, 1454 Builders Bldg., Chicago, Illinois.

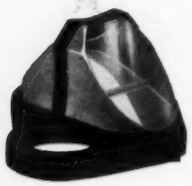
RICHARDSON

LITTLE GIANTS JUNIORS

CRUISABOUTS

7 power, 35 mm objectives. Dust-proof; moisture-proof. $81.00 up.

It's Fitting Out Time!



Prisms secured by metal strap anchored to metal stage

Select the New 1934 Bausch & Lomb 7 x 35

Hit of the Motor Boat Show

WHEN fitting out your craft for the 1934 season, *be sure to get 1934 binoculars*. The new 1934 Bausch & Lomb Binoculars are the latest development in optical construction. Their design is based on the practical experience of the U. S. Navy and U. S. Coast Guard. The Bausch & Lomb 7 x 35 model has been built in response to a popular demand from yachtsmen for a binocular with large field of view, greater illumination for night, haze and dirty weather; light-weight for one-hand use. The prisms are mounted to U. S. Government standards to stand extremely hard usage. An exclusive Bausch & Lomb feature. The eye-pieces are either centrally or individually focused. Dust-proof; moisture-proof. None finer, here or abroad. Built for life-time use. Bausch & Lomb Binoculars represent the finest value available.

Write for free de luxe catalog

FREE: Before you buy any binocular send for the new 1934 de luxe catalog which illustrates and describes the complete line. Tells how to select the right glass for every use.

BAUSCH & LOMB OPTICAL CO., 722 St. Paul St., Rochester, N. Y.

BAUSCH & LOMB

BINOCULARS

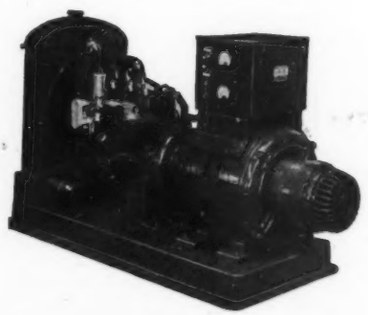
Oil Burning Generating Sets

By D. W. Onan & Sons

Five new sizes of oil burning generating sets are offered by D. W. Onan & Sons, of Minneapolis, with capacities varying from 10 to 50 kw. These are furnished in either a.c. or d.c. models, the standard construction being 110 or 220 volt a.c., single or three phase. If desired, higher voltages can be supplied. They will operate on any of the regular commercial fuel oils, the consumption being about .53 pounds of fuel per horse power hour at full load. Under normal conditions, it is possible to get from six to eight kilowatt hours per gallon of fuel even at half to three-quarters load. Mechanical maintenance, it is stated, is on a par with that of gasoline sets for equivalent service.

These engines operate on the Hesselman cycle. On the suction stroke, air is drawn into the cylinder, the amount being metered by a balanced throttling valve and proportioned to the load requirement. Compression is higher than with a gasoline engine, though not as high as with a Diesel. Fuel, in the correct amount to combine with the intake air, is delivered under pressure near the top of the compression stroke, and intimately mixed with the air. The mixture is fired by a spark plug. The mixture is kept at the proper ratio, no matter what the load, to insure prompt ignition.

The engines used on Onan generating sets are designed for heavy duty and constant service and these machines have seen long and continuous operation in many parts of the world. The generators used with the a.c. sets are standard alternators with revolving field, and exciters built in, with large self aligning ball bearings. They are fan cooled and rated at 40° temperature rise.



The compact 4-cylinder model. Five new sizes of these oil burning generating sets are available

In addition to the oil engine driven sets, D. W. Onan & Sons also build gasoline driven plants with capacities from 300 to 35,000 watts, single and multi-cylinder engines, and alternating current generators. The engines of the plants from 300 to 2,000 watts are air cooled, and on sizes from 2,000 to 35,000 watts are water cooled. Direct current plants of companion sizes are available but the manufacturers recommend them only for minimum requirements or when, for some specific reason, d.c. current must be used.

A BOAT TO BE PROUD OF...AT A PRICE WITHIN REASON

"The most up-to-the-minute boat at the New York motor boat show" in the opinion of many experienced yachtsmen was this new A. C. F. twin-screw 36' cruiser with accommodations that would do credit to a 45-footer. Sleeps six. Forward and aft cockpits. Glassed deckhouse. All screens of never-rusting Inconel metal. Twin 80 h. p. Chrysler Crown engines mounted in rubber. Engine room ventilated by outside blower. Speed 17 m. p. h. Price $7150.*

AMERICAN CAR AND FOUNDRY COMPANY

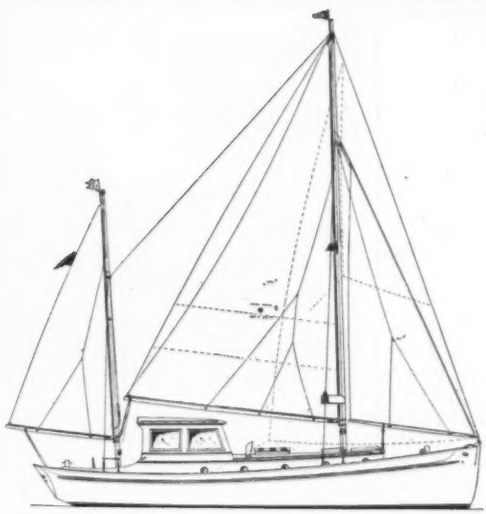
• • 30 CHURCH STREET · NEW YORK, N. Y. • •

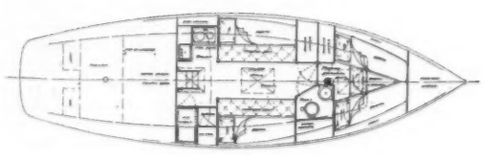
Sales and Service Station: Foot of Fordham Place, City Island, New York

*In the water, at Wilmington, Delaware.

a. c. f.

NRA WE DO OUR PART





DIMENSIONS

L.O.A.	36'–0"
L.W.L.	31'–6½"
Beam	11'–0"
Draft	4'–6"

CASEY AUXILIARIES

CONSTANTLY IMPROVED ALWAYS UP TO DATE

•

THE Casey Boat Building Co. is a builder of auxiliaries and we are proud of our reputation as such. To round out our well known lines we have designed the yacht shown here as our latest 1934 standard model.

Many firms have designed and built so called motor sailers. Some have been, others have not. Some are more frank and build motor ketches, but we, the builders of CASEY AUXILIARIES prefer to produce an auxiliary power cruiser.

Here is a craft the seagoing boatman has been asking for. More seaworthy than a straight power cruiser, more dependable than the auxiliary sail boat with all the best features of both worked together into a new product, the CASEY AUXILIARY POWER BOAT.

Cruising accommodations for four or six as required, sheltered bridge, ample deck space, powerful reduction gear motor, ample beam, heavy displacement, ballast inside and out, a snug ketch rig when sail is wanted, steadying power in a heavy beam sea with jib and mizzen or heaving-to under storm canvas when it blows too hard, are some of the salient features to be found in this our latest AUXILIARY.

If you are considering a new boat for this season, write to us at your first opportunity for further particulars — or better still, come to Fairhaven, Mass., and talk with us.

For satisfactory, trouble free cruising whether auxiliary sail boat or auxiliary power boat have your next boat built by

CASEY BOATBUILDING CO., INC.

FAIRHAVEN, MASS.